GARMENT PRODUCTION LEVEL - III

TVET CURRICULUM

Based on December 2021, (V-III) Occupational standard (OS)

Preface

The reformed TVET-System is an outcome-based system. It utilizes the needs of the labor market and occupational requirements from the world of work as the benchmark and standard for TVET delivery. The requirements from the world of work are analyzed and documented – taking into account international benchmarking – as occupational standards (OS).

In the reformed TVET-System, curricula and curriculum development play an important role with regard to quality driven comparable TVET-Delivery. The Curricula help to facilitate the training process in a way, that trainees acquire the set of occupational competences (skills, knowledge and attitude) required at the working place and defined in the occupational standards (OS).

This curriculum has been developed by a group of professional experts from different Regional TVET Bureaus, colleges, Industries, Institutes and universities based on the occupational standard for Garment production -Level III.

The curriculum development process has been actively supported and facilitated by **Ministry of Labor and Skills.**

TVET-Program Design

1.1.   TVET-Program Title: Garment production **Level -III**

1.2.   TVET-Program Description

The Program is designed to develop the necessary knowledge, skills and attitude of the trainees to the standard required by the occupation. The contents of this program are in line with the occupational standard. The Trainees who successfully completed the Program will be qualified to work as a **Garment Producer** with competencies elaborated in the respective OS. Graduates of the program will have the required qualification to work in the **Industry** sector in the field of **Garment production.**

The prime objective of this training program is to equip the trainees with the identified competences specified in the OS. Graduates are therefore expected to Interact with Garment Production Personnel, Implement CAD System in pattern production, Perform cost estimates for garments products, Perform cutting operation, Set and produce digital embroidery, Sew Woven and Stretch Knit Fabrics, Apply Finishing on Garment Product and Maintain and repair garment machineries in accordance with the performance criteria and evidence guide described in the OS.

1.3.   TVET-Program Training Outcomes

The expected outputs of this program are the acquisition and implementation of the following units of competences:

IND GAP3 01 1221 Interact with Garment Production Personnel

IND GAP3 02 1221 Implement CAD System in pattern production

IND GAP3 03 1221 Perform cost estimates for garments products

IND GAP3 04 1221 Perform cutting operation

IND GAP3 05 1221 Set and produce digital embroidery

IND GAP3 06 1221 Sew Woven and Stretch Knit Fabrics

IND GAP3 07 1221 Apply Finishing on Garment Product

IND GAP3 08 1221 Maintain and repair garment machineries

1.4.   Duration of the TVET-Program

The Program will have duration of *546 hours* including the on school/ Institution training and on-the-job practice or cooperative training time. Such cooperative training based on realities of the industry, nature of the occupation, location of the TVET institution, and other

factors will be considered in the training delivery to ensure that trainees acquire practical and workplace experience.

S..no	Unit competency	TVET Institution training		Cooperative training	Total hours	Remarks
		Theory	Practical			
1.	Interact With Garment Production Personnel	20	10	10	40	
2.	Implement CAD System In Pattern Production	24	80	..	104	
3.	Perform Cost Estimates For Garments Products	20	12	8	40	
4.	Perform Cutting Operation	20	24	16	60	
5.	Set And Produce Digital Embroidery	16	64	..	80	
6.	Sew Woven And Stretch Knit Fabrics	18	100	32	150	
7.	Apply Finishing On Garment Product	8	16	8	32	
8.	Maintain And Repair Garment Machineries	16	16	8	40	
Total hour					**546**	

1.5. Qualification Level and Certification

Based on the descriptors elaborated on the Ethiopian National TVET Qualification Framework (NTQF) the qualification of this specific TVET Program is Garment production Level- III .

The trainee can exit after successfully completing the modules in one level and will be awarded the equivalent institutional certificate on the level completed. However, only institutional certificate of training accomplishment will be awarded.

1.6. Target Groups

Any citizen **with or without disability** who meets the entry requirements under items and capable of participating in the training activities is entitled to take part in the Program.

1.7 Entry Requirements

The prospective participants of this program are required to possess the requirements or directive of the **Ministry of Labor and Skills**.

1.8 Mode of Delivery

This TVET-Program is characterized as a formal Program on middle level technical skills. The mode of delivery is co-operative training. The time spent by the trainees in the real work place/ industry will give them enough exposure to the actual world of work and enable them to get hands-on experience.

The co-operative approach will be supported with school-based lecture-discussion, simulation and actual practice. These modalities will be utilized before the trainees are exposed to the industry environment. Hence based on the nature of the occupation, location of the TVET institutions, and interest of the industry alternative mode of cooperative training such as apprenticeships, internship and traineeship will be employed. In addition, in the areas where industry is not sufficiently available the established production and service centers/learning factories in TVET institutions will be used as cooperative training places. The Training-Institution and identified companies have forged an agreement to co-operate with regard to the implementation of this program.

1.9. TVET-Program Structure

Unit of Competence		Module Code & Title		Training Outcomes	Duration (In Hours)
IND GAP3 01 1221	Interact with Garment Production Personnel	**IND GAP3 M01 0322**	Interacting with Garment Production Personnel	• Determine job requirements • Prepare implementation of workplace communication • Communicate Production Related Information	40
IND GAP3 02 1221	Implement CAD System in pattern production	**IND GAP3 M02 0322**	Implementing CAD System in pattern production	• Prepare workstation • Interpret the design • Create block pattern • Develop Patterns • Modify And Finalize Pattern • Grade pattern • Produce marker • Complete work	104
INDGAP3 03 1221	Perform cost estimates for garments products	**INDGAP3 M03 0322**	Performing cost estimates for garments products	• Identify costs associated with each production option • Identify and calculate labour costs involved in garment product production • Develop costing sheets to industry standards	40
IND GAP3 04 1221	Perform cutting operation	**IND GAP3 M04 0322**	Performing cutting operation	• Prepare workstation • Lay-up fabric • Draft lay marker • Copy marker • Copy marker	60

				• Cut work	
				• Complete work	
IND GAP3 05 1221	Set and produce digital embroidery	**IND GAP3 M05 0322**	Setting and producing digital embroidery	• Determine work requirements • Select and use program features • Prepare work pieces and workstation • Produce digital embroidery • Dispatch completed work	80
IND GAP3 06 1221	Sew Woven and Stretch Knit Fabrics	**IND GAP3 M06 0322**	Sewing Woven and Stretch Knit Fabrics	• Prepare workstation • Plan garment construction • Prepare work pieces • Adjust machine settings. • Identify machine performances • Sew garment • Complete work	150
IND GAP3 07 1221	Apply Finishing on Garment Product	**IND GAP3 M07 0322**	Applying Finishing on Garment Product	• Determine job requirements • Prepare workstation • Finish work	32
IND GAP1 08 1221	Maintain and repair apparel machineries	**IND GAP3 M08 0322**	Maintaining and repairing apparel machineries	• Undertake programmed safety and maintenance checks • Undertake basic programmed maintenance • Perform basic preventive maintenance of tools • Perform inventory of machineries and complete work activities	40

*The time duration (Hours) indicated for the module should include all activities in and out of the TVET institution.

1.10   Institutional Assessment

Two types of evaluation will be used in determining the extent to which training outcomes are achieved. The specific training outcomes are stated in the modules. In assessing them, verifiable and observable indicators and standards shall be used.

The *formative assessment* is incorporated in the training modules and form part of the training process. Formative evaluation provides the trainee with feedback regarding success or failure in attaining training outcomes. It identifies the specific training errors that need to be corrected, and provides reinforcement for successful performance as well. For the teacher, formative evaluation provides information for making instruction and remedial work more effective.

Summative Evaluation the other form of evaluation is given when all the modules in the program have been accomplished. It determines the extent to which competence have been achieved. And, the result of this assessment decision shall be expressed in the term of institutional Assessment implementation guidelines.

Techniques or tools for obtaining information about trainees' achievement include oral or written test, demonstration and on-site observation.

1.11   TVET Teachers Profile

The teachers conducting this particular TVET Program are A Level and who have satisfactory practical experiences or equivalent qualifications.

LEARNING MODULE M01

TVET-PROGRAMME TITLE: Garment Production **Level- III**
MODULE TITLE: **Interacting with Garment Production Personnel**
MODULE CODE: **IND GAP3 M01 0322**
NOMINAL DURATION: 40 Hours
MODULE DESCRIPTION: This module covers the knowledge, skills and attitudes required to interact and communicate with others in the garment production process to ensure production outcomes are achieved.
LEARNING OUTCOMES   At the end of the module the trainee will be able to: **LO1 Determine Job Requirements**   **LO2 Prepare Implementation Of Workplace Communication**   **LO3 Communicate Production Related Information**

MODULE CONTENTS:
 	
 LO1. Determine job requirements
 	
     1.1 Complying with work health and safety
 	
         1.1.1   Understanding benefit of health and safety
 	
         1.1.2   Identifying cause of injury
 	
         1.1.3   Identifying operational instruction
 	
         1.1.4   Preparing work environments
 	
     1.2 Using appropriate personal protective equipment (PPE)
 	
     1.3 Follow standard operating procedures (SOP)
 	
     1.4 Identifying job requirements
 	
 LO2. Prepare implementation of workplace communication
 	
     2.1 Identifying routine workplace communication channels and tools
 	
     2.2 Identifying communication protocols of different garment production personnel
 	
     2.3 Identifying workplace interaction and communication practices
 	
 LO 3 Communicate production related information
 	
     3.1 Identifying objectives and benefits of effective communicating
 	
     3.2 Using appropriate communication tools

3.3 Using aappropriate language and terminology in production process

3.4 Seeking and responding to appropriate feed back

3.5 Receiving outcome documents of communication and information

Learning Methods:				
For none impaired trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Pprovide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ rovide tutorial support (if necessary
Group discussion	❖ Facilitate the integration of trainees with group members	❖ Use sign language interpreters ❖ Facilitate the integration of	❖ Facilitate the integration of trainees	❖ Introduce the trainees with their peers

	❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material ❖ ❖	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/ Observation	❖ Brief the instruction or provide them in large text ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO.1. Determine job requirements

- Follow standard operating procedures.
- Comply with work health and safety OHS requirements at all times
- Use appropriate personal protective equipment (PPE) in accordance with standard operating procedure.
- Identify job requirements from specifications, drawings, job sheets or work instructions

LO.2 Prepare implementation of workplace communication

- Identify roles of different production personnel
- Identify routine workplace communication channels and tools, and apply workplace procedures.
- Identify communication protocols of different garment production personnel
- Identify workplace interaction and communication practices and quality standards

LO.3 Communicate production related information

- Identify objectives and benefits of communicating production-related information effectively
- Use appropriate communication tools
- Routinely use language and terminology that is appropriate to production process when interacting with work team, to ensure required meaning is accurately communicated
- Seek and respond to feedback to ensure communication in relaying production concepts and requirements is effective
- Seek assistance from appropriate personnel to resolve any difficulties that arise in communication
- Document outcomes of communication and information received according to workplace procedures and maintain records

IND GAP3 M 01 0322 Interact With Garment Production Personnel				
Item No.	**Category/Item**	**Description/ Specifications**	**Quantity**	**Recommended Ratio (Item: Trainee)**
A.	*Learning Materials*			
	TTLM	TTTLM prepared by the trainer	25	1:1
	Reference Books			
	Apparel Manufacturing Technology	Solinger, J. 1998. Analysis Principles and Practice. Columbia Boblin Media Corp, New York, USA.	5	1:5
	Journals/Publication/Magazines			
	Introduction to Clothing Production Management.	Chuter, A.J. 1995. Blackwell Scientific Publications, Oxford, UK.	5	1:5
B.	*Learning Facilities & Infrastructure*			
	Whit board	0.8*1.20*2m	1	1:25
	Lecture class	6*7m2	1	1:25
	Projector		1	1:25
C.	*Consumable Materials*			
	Paper	A4	1pack	1:25
	Marker pen	White board marker	1pac	5:25
D	**Tools and Equipment**	Chair and table	25	1:1

LEARNING MODULE M02
TVET-PROGRAMME TITLE: Garment Production **Level- III**
MODULE TITLE: **Implement CAD System In Pattern Production**
MODULE CODE: **IND GAP3 M02 0322**
NOMINAL DURATION: 104 Hours
MODULE DESCRIPTION: This module covers the knowledge, skills and attitudes required to produce advanced patterns by using CAD software including modifications, grading, marker making and plotting.

LEARNING OUTCOMES
 	
At the end of the module the trainee will be able to:
 	
   Lo1. Prepare workstation
 	
   Lo2. Interpret the design
 	
   Lo3. Create block pattern
 	
   Lo4. Develop patterns
 	
   Lo5. Modify and finalize pattern
 	
   Lo6. Grade pattern
 	
   Lo7. Produce marker
 	
   Lo8. Complete work

MODULE CONTENTS:
 	
LO1. Prepare workstation
 	
   1.1 Setting up Workstation and seating.
 	
   1.2 Selecting Patternmaking tools and equipment.
 	
LO2. Interpret the Design
 	
   2.1 Interpreting and clarifying design drawings and specifications
 	
   2.2 Identifying design lines and style features.
 	
   2.3 Obtaining details of base size.
 	
   2.4 Determining ease and seam allowance.
 	
   2.5 Considering methods or trim details of garment in relation to the design.
 	
LO3.Create Block pattern
 	
   3.1 Determining appropriate block for the development of pattern.
 	
   3.2 Producing block Patterns with CAD system.

3.3   Making alteration in according to design specifications.

LO 4 Develop patterns

4.1 Identifying appropriate software's.

4.2 Identifying and applying advanced Pattern-making principles.

4.3 Producing pattern with design requirements.

4.4 Checking, labelling and completing Pattern pieces.

4.5 Documenting methods and formulas used.

LO 5 Modify And Finalize Pattern

5.1   Identifying modifications tools in software.

5.2   Performing modifications in according to design requirements.

5.3   Checked Pattern pieces for accuracy of seam and ease allowances, seam match, hems and functional openings.

5.4   Completing and assessing pattern alterations to meet fit and design.

5.5   Checking and finalising pattern to ensure completeness and compliance to design.

5.6   Labelling pattern information's.

LO 6 Grade pattern

6.1   Identifying grading system used in CAD.

6.2   Identifying measurements of base size and subsequent spread.

6.3   Determining number of sizes in grading.

6.4   Establishing grade increments between sizes.

6.5   Identifying stacking grade points or lines.

6.6   Grading pattern using patternmaking technical skills on computer.

6.7   Preserving integrity of pattern attributes.

6.8   Labelling all pattern pieces with pattern marking symbols.

6.9   Checking and rectifying pattern.

6.1   Documenting graded patterns.

Lo7. Produce marker

7.1   Collecting and Checking required pattern pieces by computer.

7.2   Identifying marker requirements.

7.3   Manipulating and Positioning Pattern pieces in automatic software system.

7.4   Checking Pattern 'grain' indication against grain of material.

7.5   Creating marker with required pattern pieces, size and fabric requirements.

7.6   Checking marker against order requirements.

7.7   Documenting marker and maintaining records.

Lo8.   Complete work

8.1   Completing Pattern pieces and marker in according to design.

8.2   Establishing plotting requirements in according to required information.

8.3   Plotting finished markers.

8.4   Filing and documenting completed patterns and marker.

Learning Methods:				
For none impaired trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision	**Deaf**	**Hard of hearing**	**Physical impairment**
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Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support ❖ (if necessary
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Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material ❖ ❖	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:				
Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
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Demonstration/ Observation	❖ Brief the instruction or provide them in large text ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension ❖

ASSESSMENT CRITERIA:

LO1.   Prepare workstation

- Workstation and seating are set up according to OHS practices and specifications for work

- Patternmaking tools and equipment are selected and ready to use.

LO2.   Interpret The Design

- Interpreting and clarifying Design drawings and specifications

- Identifying design lines and style features.

- Obtaining details of base size..

- Determining ease and seam allowance.

- Considering methods or trim details of garment in relation to the design.

LO3.Create Block pattern

- Appropriate block is determined for the development of pattern.

- Block Pattern is produced with CAD system.

- Any alteration is made according to design specifications.

LO 4 Develop patterns

- Appropriate software's are identified to develop 2D pattern

- Advanced Pattern-making principles are identified and applied in developing pattern.

- Pattern is produced with design requirements.

- Pattern pieces are checked for accuracy of seam match, hems, markings and functional openings.

- Pattern pieces are labelled and completed.

- Methods and formulas used are documented

LO 5 Modify And Finalize Pattern

- Modifications tools in software are identified

- Modifications are performed according to design requirements.

- Pattern pieces are checked for accuracy, including seam allowances, ease allowance, seam match, hems and functional openings.

- Any pattern alterations are completed and assessed to meet fit and design

requirements.

- Pattern is finalised and checked to ensure accuracy, completeness and compliance to design specifications.

- Pattern information's are labelled.

LO 6 Grade pattern

- Grading system used in CAD is identified

- Measurements of base size and subsequent spread are identified.

- Number of sizes in grading is determined.

- Grade increments between sizes are established.

- Stacking grade points or lines are identified.

- Pattern is graded using patternmaking technical skills on computer.

- Integrity of pattern attributes is preserved during grading.

- All pattern pieces are accurately labelled with pattern marking symbols.

- Pattern is checked for accuracy and rectified.

- Graded patterns are documented.

Lo7. Produce marker

- Required pattern pieces are collected and checked by computer.

- Marker requirements are identified.

- Pattern pieces are manipulated and positioned to create for most efficient use of fabrics manually or by automatic software system.

- Pattern 'grain' indication is checked against grain of material.

- Marker is created according to required pattern pieces, size and fabric requirements.

- Marker is checked against order requirements.

- Marker is documented and accurate records are maintained.

Lo8. Complete work

- Pattern pieces and marker are completed in according to design and fabric requirement

- Plotting requirements are established according to required information.

- Finished markers are plotted

- Completed patterns and marker are filed and documented.

Annex: Resource Requirements

	IND GAP3 M02 0322 Implement CAD System In Pattern Production			
Item No.	**Category/Item**	**Description/ Specifications**	**Quantity**	**Recommended Ratio (Item: Trainee)**
A.	*Learning Materials*			
1.	TTLM	TTTLM prepared by the trainer	25	1;1
2.	Reference Books			
	How to use Lectra Modaris pattern cutting software	Pattern cutting for clothing using CAD. M. Stott 2000	5	1:5
B.	*Learning Facilities & Infrastructure*			
1.	Whit board	0.8*1.20*2m	1	1:25
2.	Lecture class	6*7m2	1	1:25
3.	Projector	Standard	1	1:25
C.	*Consumable Materials*			
1.	Plotter Paper (role)	2 meter width	1 role	1:25
2	Marker Pen	White board marker	1 pack	1:5
D	*Tools and equipment*			
	Computer	Desk top 64bit	25	1:1

LEARNING MODULE 03
TVET-PROGRAMME TITLE: Garment Production **Level III**
MODULE TITLE: **Performing cost estimates for garments products**
MODULE CODE: **IND GAP3 M03 0322**
NOMINAL DURATION: 40 Hours
MODULE DESCRIPTION: This module covers the knowledge, skills and attitudes to estimate materials, labor and time requirements and establish cost calculations for garment production within the garment industry.
LEARNING OUTCOMES At the end of the module the trainee will be able to: **Lo1. Identify costs associated with each production option** **Lo2. Identify and calculate labor costs involved in garment product production** **Lo3. Develop costing sheets to industry standards**

MODULE CONTENTS:

LO1. Identify costs associated with each production option

    1.1   Identifying factors of garment costing.

    1.2   Identifying market forces of garment industry costing.

    1.3   Estimating fabric, trim and accessory cost .

    1.4   Comparing similar garment different price points.

    1.5   Identifying hidden costs of garment production.

    1.6   Explaining cost difference between sample and bulk production.

    1.7   Identifying target market.

    1.8   Identifying manufacturing cost.

    1.9   Identifying industry quality standards.

    1.10 Identifying and compare cost benefits.

    1.11 Identifying and compare cost negative.

LO2. Identify and calculate labor costs involved in garment product production

    2.1   Identifying Labor involved in garment product

    2.2   Calculating Labor costs for production.

    2.3   Comparing different methods of utilizing labor

LO3. **Develop costing sheets to industry standards**

    3.4   Identifying cost sheet components

    3.5   Developing cost sheets to industry standard

3.6 Completing and Using Cost sheet

3.7 Assessing quality standards

Learning Methods:				
For none impaired trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary

Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/ Observation	❖ Brief the instruction or provide them in large text ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO1. Identify costs associated with each production option

- Factors to be taken into consideration when costing garment products are identified according to OHS practices.

- Market forces that affect costing for garment industry are identified.

- Costs of fabric and trims for sample garments and production are estimated.

- Similar garments from different price points within garment industry are compared and any production differences are identified.

- Hidden costs in sample production are identified.

- Differences in costs for sample and bulk production garments are explained.

- Target market for end products in design production is identified

- Manufacturing cost difference is identified.

- Quality industry standards for design production are identified

- Cost benefits of each option are identified and compared.

- Cost negatives of each option are identified and compared

LO2. Identify and calculate labor costs involved in garment product production

- Labor involved in fashion product production is identified.

- Labor costs for production of sample and bulk production are calculated.

- Different methods of utilizing labor in fashion industry are identified and compared.

LO3. Develop costing sheets to industry standards

- Components of costing sheets are identified.
- Costing sheets are developed to meet garment industry standards.
- Costing sheet is completed for a cut, make and trim production run
- The contribution cost of the variables are calculated
- Costing sheet is completed for a sample garment.
- Costing sheet is used to develop quotation for bulk production.
- Quality standards of work and received materials are assessed.
- Costing sheet is completed for a cut, make and trim production run
- The contribution cost of the variables are calculated
- Quality standards of work and received materials are assessed

Annex: Resource Requirements

Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Learner)
	IND GAP3 M03 0322 Performing Cost Estimates For Garments Products			
A.	*Learning Materials*			
	TTLM	Information sheet, Lap test Operation sheet	5	1:5
	Reference Books			
	Cost and Management Accounting	Thukaram Rao M.E., New Age International, Bangalore,(2004)	5	1:5
	Target costing in the textile complex	Journal of Textile Apparel Technology Management2(4):42–7.	5	1:5
	Fashion Merchandising and Garment Costing.	Kothari, V.R. and S. Joshi. (2012.)	5	1:5
	Garment Costing Method	Garment Costing Method Pareek, V. 2013	5	1:5
B.	*Learning Facilities & Infrastructure*			
1.	Lecture Room	Standard	1	1:25
2	Visual training media (LCD, laptops, blackboard, whiteboard, flip chart)		1	1:25
C.	*Consumable Materials*			
1.	Paper	A4	2 pac	1:13
4	Gowon		25	1:1
5	Chalk		5pack	1:5
6	Marker Pen	White board	3pack	1:8
D.	**Tools and Equipment's**			
1.	Calculator		25	1:1

LEARNING MODULE 04
TVET-PROGRAMME TITLE: Garment Production **Level III**
MODULE TITLE: **Performing cutting operation**
MODULE CODE: **IND GAP3 M04 0322**
NOMINAL DURATION: .60 Hours
MODULE DESCRIPTION: This module covers knowledge, skills and attitudes required to plan and perform the cutting process of fabrics as per the job card received. It includes preparatory checks to fabrics and basic calculations related to spreading, layering and fabric consumption

LEARNING OUTCOMES
 	
 At the end of the module the trainee will be able to:
 	
     Lo1. Prepare Workstation
     Lo2. Lay-Up Fabric
     Lo3. Draft Lay Marker
     Lo4. Copy Marker
     Lo5. Position Marker
     Lo6. Cut Work
     Lo7. Complete Work

MODULE CONTENTS:
 	
 LO1. Prepare workstation
 	
     1.1 Setting up cutting workstation
     1.2 Performing minor maintenance
     1.3 Adjusting cutting and spreading equipment
 	
 LO2. Lay-up fabric
 	
     2.1   Interpreting Lay-up instructions.
     2.2 Collecting and checking Fabric
     2.3 Taking remedy action to minimize fabric fault
     2.4 Adjusting fabric tension to match fabric performance.
     2.5 Performing fabric laying
 	
 LO3. Draft lay marker
 	
     3.1 Performing Cut order planning
     3.2 Checking and collecting pattern pieces
     3.3 Performing marker making

3.4 Calculating marker efficiency

Lo4. Copy marker

4.1 Checking a marker against requirements

4.2 Copying and maintaining a marker

Lo5. Position marker

5.1 Placing marker on lay.

5.2 Checking marker and lay alignment

Lo6. Cut work

6.1 Following OHS practices

6.2 Taking preventive action

6.3 Operating cutting machinery and equipment

6.4 Performing cutting operation

6.5 Checking cutting quality and taking an action

Lo7. Complete work

7.1 Labeling cut works.

7.2 Preparing cut work to next operation

7.3 Storing master marker

Learning Methods:				
For none impaired trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members	❖ Facilitate the integration of trainees with group members	❖ Introduce the trainees with their peers

	❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ Provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ Provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/ Observation	❖ Brief the instruction or provide them in large text ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO.1 Prepare Workstation

- Workstation, cutting table and seating are set up according to ohs practices and specifications for work.
- Cutting equipment is cleaned, checked and servicing assessed according to manufacturer instructions.
- Cutting table is prepared to suit correct lay length.
- Lay -up and marking equipment is set up and prepared for use.

LO.2 Lay-Up Fabric

- Lay-up instructions are interpreted.
- Fabric is collected and checked.
- Fabric width and quality are checked with lay-up instructions.
- Fabric is laid up and fabric tension adjusted to match fabric performance.
- Fabric is checked for faults and required action taken to cut out faults or other appropriate techniques.

LO.3 Draft Lay Marker

- Cutting order is interpreted for marking requirements such as fabric type, width, and quantity and garment sizes.
- Required pattern pieces are collected and checked manually or by computer.
- Pattern pieces are manipulated and positioned manually on paper or by computer for most efficient fabric use.
- Lay marker is drawn up manually or by computer.
- Lay-up instructions are prepared according to requirements.

LO.4 Copy Marker

- Marker is checked against requirements.
- Marker is copied either manually or by computer.

LO.5 Position Marker

- Marker is placed on lay.
- Marker and lay alignment are checked and appropriate action taken according to job specifications

LO.6 Cut Work

- Lay is cut using cutting equipment according to requirements for operation.
- Cutwork is inspected, any faults identified and appropriate action taken to ensure cut

pieces meet required quality standards.

- Preventative action is taken to avoid any recurrence of defective pieces, and is recorded.

- Performance of cutting equipment is regularly checked for signs of faulty operation, including evidence from inspection of cut pieces, and any required action is taken.

- OHS practices are followed.

- Action is taken according to ohs practices to prevent accidents and to eliminate risks to personal safety

LO.7 Complete Work
- Cutwork is labelled and directed to next operation and work area is cleaned and prepared for next job.

- Master copy of lay marker is stored in filing drawer or computer as appropriate.

Annex: Resource Requirements

	IND GAP3 M04 0322 Performing Cutting Operation			
Item No	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	*Learning Materials*			
	Reference manuals and books To be developed by the trainer			
	TTLM		25	1:1
	The Technology of Clothing Manufacture		5	1:5
	Jacob Solinger(1980), Apparel Manufacturing Hand Book		5	1:5
	Gillian Holman(1997),Pattern Cutting Made Easy		5	1:5
	"Spreading and Cutting of Apparel Products",	P. Lakshmana kanth, 2012.	5	1:5
B.	*Learning Facilities & Infrastructure*			
	Work shop	6x7m2	1	1:25
	Lecture room	6x7m2	1	1:25
	Library / learning resource area	Equipped with multi media	1	1:25
C.	*Consumable Materials*			
	Production Patterns	Full garment parts	25	1:1
	Fabric	Stretched woven and knitted	125m	5:1
	Marker paper	2m width	125m	5:1
D.	*Tools and Equipments*			
	• Fabric scissors	12inch	25	1:1
	• Straight-knife cutter		5	1:5
	• Band knife cutter		1	1:25
	• Spreading and Cutting table		5m	1:5
	• Round knife		1	1:25
	• Drill and notcher		1	1:25
	• Clamps		125	5:1
	• Weight		125	5:1

LEARNING MODULE 05

TVET-PROGRAMME TITLE: Garment Production **Level III**

MODULE TITLE: **Set and produce digital embroidery**

MODULE CODE: **IND GAP3 M05 0322**

NOMINAL DURATION: 80 Hours

MODULE DESCRIPTION: This module covers the knowledge, skills and attitude required to set and use digital embroidery programs and machines to produce embroidered lettering, monograms and motifs.

| **LEARNING OUTCOMES**

At the end of the module the trainee will be able to:

   Lo1. Determine Work Requirements

   Lo2. Select And Use Program Features

   Lo3. Prepare Work Pieces And Workstation

   Lo4. Produce Digital Embroidery

   Lo5. Dispatch Completed Work |
|---|

MODULE CONTENTS:

LO1. Determine Work Requirements

     1.1 Identifying embroidery specification

     1.2 Identifying required program features

     1.3 Identifying garment considerations

     1.4 Selecting machine requirement

LO2.   Select And Use Program Features

     2.1 Selecting motifs or lettering

     2.2 Editing embroidery designs

     2.3 Setting programs

LO3.   Prepare Work Pieces And Workstation

     3.1 Laying out work pieces

     3.2 Selecting backing pieces

     3.3 Setting workbench

     3.4   Setting up equipment and materials

     3.5 Performing minor maintenance

     3.6 Reporting and recording problems

LO4. Produce Digital Embroidery

     4.1 Following OHS practice

4.2 Producing embroidery

4.3 Assessing works and adjusting machines

4.4 Managing production problems

LO5. Dispatch completed work

5.1 Checking completed work

5.2 Reporting and correcting identified faults

5.3 Completing and documenting work.

Learning Methods:				
For none impaired trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members	❖ Facilitate the integration of trainees with group members	❖ Introduce the trainees with their peers

	❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/ Observation	❖ Brief the instruction or provide them in large text ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO.1 Determine Work Requirements

- Specifications for embroidery are determined.

- Required program features are identified.

- Garment considerations are identified.

- Machine requirements are identified.

LO.2. Select And Use Program Features

- Motif or lettering is selected from stock designs.

- Designs are edited to achieve specifications.

- Program is set for operation.

LO.3 Prepare Work Pieces And Workstation.

- Work pieces are laid out.

- Backing pieces are selected to suit fabric.

- Workbench and seating are set up according to OHS practices.

- Equipment and materials are set up and adjusted to specifications for work.

- Routine minor maintenance is performed according to manufacturer specifications.

- Any problems are reported and recorded.

LO.4 Produce Digital Embroidery

- Embroidery is produced.

- OHS practices are followed.

- Work is assessed for compliance with quality standards and production specifications.

- Machine is checked and adjusted to ensure optimum performance.

- Production problems such as thread breaks are managed.

LO.5 Dispatch Completed Work

- Completed work is checked against quality standards.

- Any faults identified are reported and recorded.

- Completed work is directed to next operation.

- Work documentation is completed as required...

IND GAP3 M05 0322 Set And Produce Digital Embroidery				
Item No.	**Category/Item**	**Description/ Specifications**	**Quantity**	**Recommended Ratio (Item: Trainee)**
A.	*Learning Materials*			
	TTLM	TTTLM prepared by the trainer	5	1:5
	Reference Books			
	Traditional Embroideries of India culture	Shailaja D. Naik, New Delhi, 1996	5	1:5
	The encyclopedia of embroidery techniques,	Pauline brown, 2001 by search press Ltd.	5	1:5
B.	*Learning Facilities & Infrastructure*			
1.	Work shop	5x5meter	1	1:25
2.	Lecture room	5x5meter	1	1:25
3.	Library / learning resource area	Equipped with multi media	1	1:25
C.	*Consumable Materials*			
1.	Garment	Shirt, blouse	25	1:1
2	Fabric	Woven, starched	125m	51:1
3	Interlining	Fusible	1 role	1:25
4	Embroidery threads	Acrylic,Shine cone	125	5:1
5	Machine oil	Defrax 01	2 litter	2:25
6	Embroidery Needles	Organ DXB	25 pack	1:5
D.	*Tools and Equipments*			
1.	Digital embroidery machine with software	Tajima, reach piece	2	1:13
2	Computer	Disk top	25	1:1
3	Scanner	hp	2	1:13
4	Fabric scissors	12 inch	25	1;1

LEARNING MODULE 06			
TVET-PROGRAMME TITLE: Garment Production **Level III**			
MODULE TITLE: **Sew Woven and Stretch Knit Fabrics**			
MODULE CODE: **IND GAP3 M06 0322**			
NOMINAL DURATION: .150 Hours			

MODULE DESCRIPTION This module covers the knowledge, skills and attitudes required to sew stretch and woven fabric garments or products. It covers the skills and knowledge to plan, align and sew stretch and woven fabric garments from specifications or patterns using a variety of machines and processes.

LEARNING OUTCOMES

At the end of the module the trainee will be able to:

    Lo1. Prepare Workstation

    Lo2. Plan Garment Construction

    Lo3. Prepare Work Pieces

    Lo4. Adjust Machine Settings

    Lo5. Identify Machine Performances

    Lo6. Sew Garment

    Lo7.Complete Work

MODULE CONTENTS:

 LO1. Prepare workstation

      1.1 Follow OHS practice

      1.2 Setting up tools and equipment

 LO2. Plan garment construction

      2.1   Identifying Garment requirements

          2.1.1   Identifying stretchable fabric

          2.1.2   Preparing work pieces, accessories and trims

          2.1.3   Analyzing tech packs, design brief

          2.1.4   Performing operation break down

      2.2   Determining machine requirement

      2.3   Developing Garment constriction plan

 LO3. **Prepare work pieces**

      3.1 Sorting work pieces in accordance to assembling requirement.

      3.2 Receiving work bundle with information.

3.3 Checking work pieces according to assembling plan.

LO4. Adjust Machine Settings

4.1 Setting up workbench

4.2 Setting up sewing and pressing tools and equipment.

LO5 Identify Machine Performances

5.1 Checking Performance of machine.

LO 6 Sew Garment

6.1 Sewing stretchable woven and knitted fabric

6.2 Checking the garment as per quality standard /requirement

6.3 Follow OHS practice.

LO7 Complete Work

7.1   Inspecting and checking garment products

7.2   Recording inspected results and action taken

7.3   Recording Preventative action taken.

7.4   Completing production records and package

7.5   Directing completed work to next work task

For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ rovide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ rovide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ rovide tutorial support (if necessary

Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/ Observation	❖ Brief the instruction or provide them in large text ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO1 Prepare Workstation

- Workstation and seating are set up according to OHS practices and specifications for work.
- Patternmaking tools and equipment are set up ready for use
- Cutting tools and equipment are set up and ready to use
- OHS practices and workplace practices for dealing with hazards are identified and followed.
- OHS procedures are observed in the application of this unit.

LO2 Plan Garment Construction

- Garment requirements are identified from production specifications.
- Machining requirements are determined
- Plan for garment construction is developed.

LO3 Prepare Work Pieces

- Work bundle is received.
- Work pieces are checked for readiness for assembly.
- Work pieces are laid out in sequence according to construction plan.

LO4 Adjust Machine Settings.

- Workbench and seating are set up according to OHS practices.
- Sewing and pressing tools and equipment are set up and ready to use.
- Machines are cleaned, checked and set-up for production.
- Records are maintained.
- Machines are set up and adjusted according to specifications for work.
- Checking Needles, attachments and parts

LO5 Identify Machine Performances

- Performance of machine is regularly checked for signs of faulty operation, including evidence from inspection of finished pieces and required action taken.
- Performance of machine is regularly checked with respect to design and uniformity of machine speed.

LO6 Sew Garment

- Garment is sewn according to requirements for operations.
- Garment is sewn according to requirements for sewing woven and stretch knit fabrics and quality standards.
- Garment is sewn according to requirements for speed of work.
- Machine speed and work handling are controlled for type of operations, fabrics and product type.
- OHS practices are followed in operation of machines..

LO7 Complete Work

- Garment is inspected and checked against quality standards, any faults are identified and appropriate action taken.
- Results of inspection of finished garment are recorded.
- Action taken to either reject or correct faulty garment is recorded.
- Preventative action taken to avoid any recurrence of defective garment is recorded.
- Production records and packing slips are completed.
- Completed work is directed to next operation or packing section.

Annex: Resource Requirements

IND GAP3M 06 0322 Sew Woven and Stretch Knit Fabrics				
Item No.	**Category/Item**	**Description/ Specifications**	**Quantity**	**Recommended Ratio (Item: Trainee)**
A.	*Learning Materials*			
	TTLM	Prepared by trainer	25	1:1
	Reference Books			
	The Technology of Clothing Manufacture.	Carr, H. and B. Latham. 2006.	5	1:5
	Managing Productivity of Apparel Industry.	CBI Publishers and Distributors, New Delhi. Bheda, R. 2003.	5	1:5
B.	*Learning Facilities & Infrastructure*			
	Lecture Room	Standard	1	1:25
	Work shop	Standard	1	1:25
.	Library	Fully equipped with books and internet	1	1:25
	Visual training media (LCD, laptops, whiteboard)		1	1:25
C.	*Consumable Materials*			
	Fabric	Knitted/jersey/rib	125m	5:1
	Tailor chalk	Colour	5 pack	1:5
	Sewing thread	Cone	25	1:1
	Pin	Long	25 pack	1:1
	Scotch /glue /UHU	Standard size	5	1:5
D.	*Tools and Equipments*			
	Dress form	Women & men	2	1:13
	Pencil	HB/	25	1:1
	sharpener	standard	5	1:5
	Tape measure	Standard	25	1:1
	Standard size table	5m	2	1:13
	Record book	Not book format	25	1:1
	Sewing machine	SNLS	25	1:1
		Overlock	8	1:3
		Button hole & attach	2	1:13
		Flat lock	25	1:1

LEARNING MODULE 07
TVET-PROGRAMME TITLE: Garment Production **Level III**
MODULE TITLE: **Applying Finishing On Garment Product**
MODULE CODE: **IND GAP3 M07 0322**
NOMINAL DURATION: .32 Hours
MODULE DESCRIPTION: This module covers the knowledge, skills and attitude required to finish completed work in the production of garments or other associated articles.
LEARNING OUTCOMES   At the end of the module the trainee will be able to: **LO1. Determine job requirements**   **LO2. Prepare workstation**   **LO3. Finish work**

MODULE CONTENTS:
 	
 LO1. Determine job requirements
 	
     1.1. Using appropriate personal protective equipment (PPE)
 	
     1.2. Following standard operating procedures
 	
     1.3. Identifying job requirements from specifications
 	
 LO2. Prepare workstation
 	
     2.1 Setting up workbench and workplace procedures
 	
     2.2 Laying out components in proximity
 	
 LO3. **Finish work**
 	
     3.1 Defining finishing processes for productivity and quality
 	
     3.2 Performing finishing operations
 	
     3.3 Checking garment or article against specifications
 	
     3.4 Identifying and report faults
 	
     3.5 Completing production and records

Learning Methods:

For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members	❖ Facilitate the integration of trainees with group members	❖ Introduce the trainees with their peers

	❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/ Observation	❖ Brief the instruction or provide them in large text ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA :-

LO1. Determine Job Requirements

- Follow standard operating procedures
- Comply with work health and safety (OHS) requirements at all times
- Use appropriate personal protective equipment (PPE)
- Identify job requirements from specifications, drawings, job sheets or work instructions

LO2. Prepare Workstation

- Set up workbench and seating according to safety standards and workplace procedures
- Lay out components in proximity and sequence according to specifications

LO3. Finish Work

- Process steps in finishing and defining sequence of processes for productivity and quality are identified
- Perform finishing operations according to customer specifications
- Check garment or article against specifications to ensure correct sizing and attention to loose threads, buttons, missing buttons, hooks and attachments
- Identify and report faults, and return to appropriate section for repair or completion according to quality standards
- Complete production and records

IND GAP2 M07 0322 Applying Apparel Finishing				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Learner)
A.	*Learning Materials*			
	TTLM	Information sheet, Lap test Operation sheet	5	1:5
	Reference Books			
	Apparel Product Development	Maurice J.Johnson & Evelyn C. moore, Prentice Hall Inc,2001	5	1:5
	Apparel Production Handbook	Jacob Solinger, Reinhold Publications,1998	5	1:5
B.	*Learning Facilities & Infrastructure*			
	Lecture Room	Standard	1	1:25
	Visual training media (LCD, laptops, blackboard, whiteboard, flip chart)	Standard	1	1:25
C.	*Consumable Materials*			
	Carton	3 Plies	25	1:1
	Poly bag	25x25cm2	25	1:1
	Barcode	sticker	25	1:1
D.	*Tools and Equipment's*			
	Flat iron	Steam iron	5	1:5
	Ironing board	Standard	1	1:25
	Sleeve board	Standard	1	1:25
	Trimming scissor	Standard	25	1:1
	Metal detector machine	Standard	1	1:25
	Stem iron machine	Self boiler	5	1:5
	Steam press machine	Standard	1	1:25
	Dust remover	Standard	1	1:25

LEARNING MODULE 08

TVET-PROGRAMME TITLE: Garment Production **Level III**
MODULE TITLE: **Maintaining And Repairing Apparel Machineries**
MODULE CODE: **IND GAP3 M08 0322**
NOMINAL DURATION: 40 Hours
MODULE DESCRIPTION: This module covers competence required in carrying out compulsory, routine safety and maintenance checks on apparel machineries in a garment manufacturing industries.

LEARNING OUTCOMES
 	
At the end of the module the trainee will be able to:
 	
    Lo1. Undertake programmed safety and maintenance checks
 	
    Lo2. Undertake basic programmed maintenance
 	
    Lo3. Perform basic preventive maintenance of tools
 	
    Lo4. Perform inventory of machineries and complete work activities

MODULE CONTENTS:

LO1. Undertake Programmed Safety And Maintenance Checks

    1.1 Inspecting/checking machine and equipments

    1.2 Follow up operational procedures to check the machine

    1.3 Calibrating apparel machinery

    1.4 Sorting tools, instruments and equipment

LO2. Undertake Basic Programmed Maintenance

    2.1 Cleaning and lubricating Machinery / equipments

    2.2 Removing/ replacing of consumable component

    2.3 Replacing and / or topping up Fluids and lubricants

    2.4 Performing minor repairing

    2.5 Adjusting machine moving part

LO3. Perform Basic Preventive Maintenance Of Tools

    3.1 Identifying a machine failure

    3.2 Reporting machine/equipment failure

    3.3 Performing cleaning operations

    3.4 Accomplishing necessary report

LO4. Perform Inventory Of Machineries And Complete Work Activities

    4.1 Performing inventory control

Learning Methods:				
For none impaired trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members	❖ Facilitate the integration of trainees with group members	❖ Introduce the trainees with their peers

	❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/ Observation	❖ Brief the instruction or provide them in large text ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO.1 Undertake Programmed Safety And Maintenance Checks

- Machines / equipment are inspected / checked according to workplace routine
- Checks are undertaken safely and to prescribed operational procedures.
- Apparel machineries are checked and calibrated in accordance with manufacturer's instructions
- Non-functional tools, instruments and equipment are segregated and labeled according to classification
- Status/report is recorded on pro-forma or reported orally based on operational processes

LO.2 Undertake Basic Programmed Maintenance

- Machines/ equipment are cleaned and lubricated using appropriate lubricant, according to preventive maintenance schedule or manufacturer's specifications/instructions following standard procedures
- Removal/ replacement of consumable component is undertaken to prescribed procedure and instructions
- Fluids and lubricants are replaced and / or topped up to prescribed schedule and according to manufacturer's instructions
- Minor machine repairs performed according to manual instruction or workplace procedures
- Machine moving parts adjusted to manufacturer's specifications

LO.3 Perform Basic Preventive Maintenance Of Tools
- Machines are checked for failure based on specifications
- Defective hand tools are reported for repair or replacement due to standard procedures
- Machines are cleaned using appropriate cleaning materials and according to standard procedures
- Necessary reports are accomplished in accordance with workplace procedures.

LO.4 Perform Inventory Of Machineries And Complete Work Activities
- Inventory of machineries, tools and equipment is performed in accordance with workplace procedures
- Inventory results are documented / recorded in appropriate forms as per company regulations
- Machineries, tools and equipment are stored safely in appropriate locations in accordance with manufacturer's specifications or company policy .

Annex: Resource Requirements

Item No	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
IND GAP3 M 08 0322	**Maintaining and repairing apparel machineries**			
A.	*Learning Materials*			
	Reference			
	TTLM, manuals and books To be developed by the trainer	Machines instruction manuals	25	1:1
	Sewing Machine Maintenance	Wendy Hamilton,2006	5	1:5
	Care and maintenance of sewing machineries	Wendy Hamilton,2000	5	1:5
B.	*Learning Facilities & Infrastructure*			
	Work shop	Standard	1	1:25
	Lecture room	Standard	1	1:25
	Library / learning resource area	Equipped with multi media	1	1:25
C.	*Consumable Materials*			
	Lubricate	Defrax oil	14 lit	1:2
D.	*Tools and Equipments*			
	Allen key	set	5	1:5
	Scissors	12 inch	25	1:1
	Plier	Standard	5	1:5
	Brush	Width 13cm	25	1:1
	Calibers	Standard	5	1:5
	Screw driver	Flat and crossed tip	25	1:1
	Wrench	6-30 number	25	1:1
	Industrial Sewing machines	Lock/chain stitch m/c	25	1:1
	Embroidery machine	Tajima/any brand	2	1:13

Acknowledgements

The **Ministry of Labor and Skills** wishes to thank and appreciation for the trainers who donated their effort and time to develop this outcome based curriculum for the TVET Program **garment production Level III**.

We also thank all regional Labor and Skill/TVET Bureaus, Ministry of labor and skills coordinators, all instructors who developed this curriculum for active facilitation of this curriculum development.

The trainers who developed the curriculum

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3	MEKIDES ALEMU	MSC	Garment	A.A	ETU	0991442429	mekidalemu@gmail.com
4	YOHANNES ADMASSU	MSC	Garment	A.A	ETU	0941956066	admassu77777@gmail.com
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