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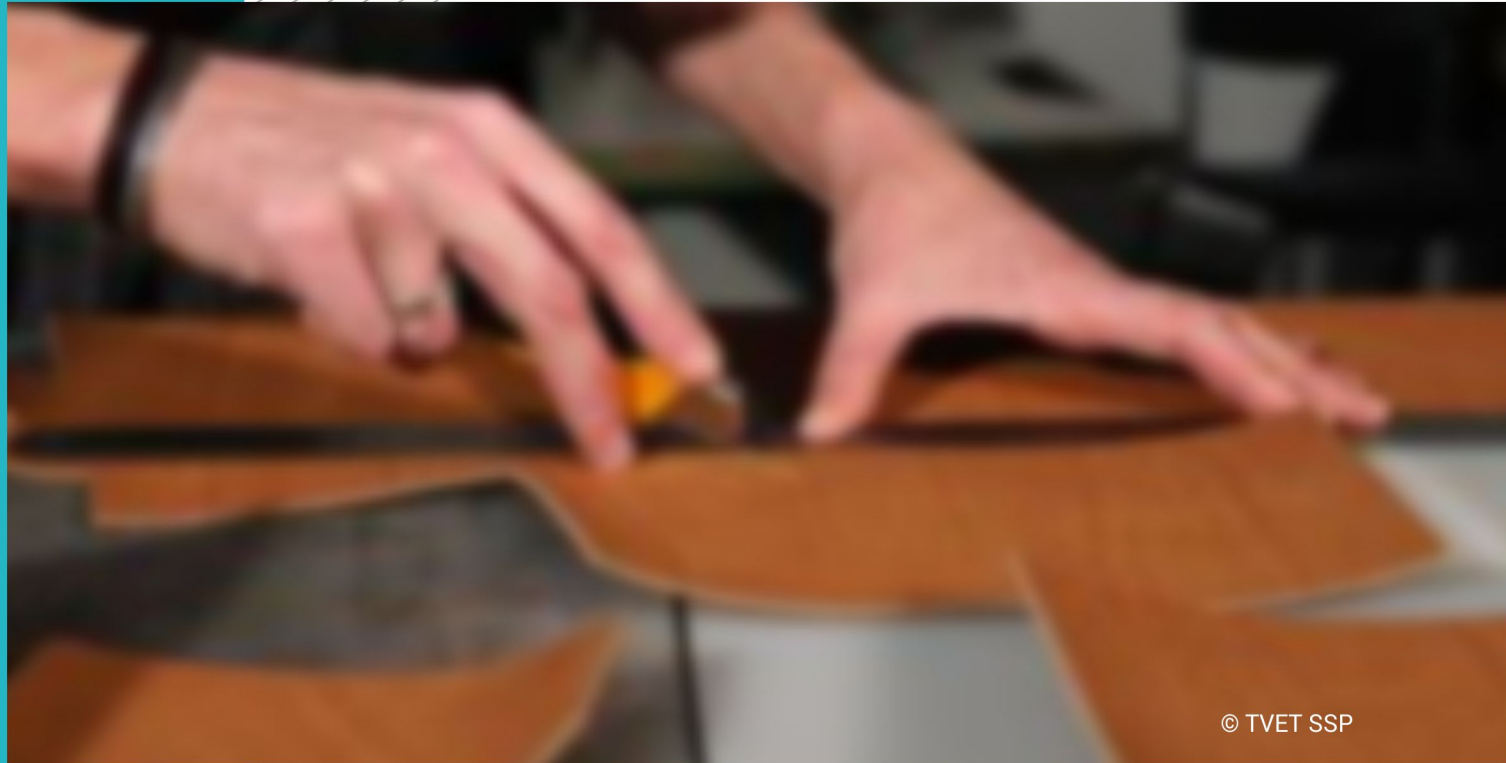
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LEATHER PRODUCTS DEVELOPMENT TECHNICIAN



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CBT CURRICULUM

National Vocational Certificate Level 2

Version 1 - April, 2019



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Module-2
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Introduction

A Leather Products Development Technician is a tradesman who specializes in the designing and preparation of leather products. This person is competent in cutting and stitching of leather garments, gloves and other accessories (including bags, wallets, belts etc.). The person is able to plan and structure the work process according to the technical requirements and the company structure. He performs basic maintenance of stitching machines and prepares the machines as per the production requirements. He is also a competent pattern maker using manual as well as CAD/CAM tools and is also able to design leather products manually or on various drawing software. The Leather Products Development Technician follows the relevant technical regulations and standards of the trade as well as health and safety regulations. Their work is always guided by environmental and economic aspects.

The job of a Leather Products Development Technician is perfect for focused individual who have tendency of attending to details and work with perfection. The Leather Products Development Technician is usually hired by Leather Garments, Gloves and other leather products manufacturer.

Definition/ Description of the training program for *Leather Products Development Technician*

Global fashion trends bring about swift changes in the products, processes and technology in leather industry. Therefore, industry's need for skilled workforce is increasing which can only be managed through setting relevant competency standards in collaboration with the leading industries. Being aware of this fact, National Vocational & Technical Training Commission (NAVTTTC) developed competency standards for Leather Products Development Technician under National Vocational Qualifications Framework (NVQF). These competency standards have been developed by a Qualifications Development Committee (QDC) and validated by the Qualifications Validation Committee (QVC) having representation from the leading Garments and Gloves manufacturing companies of the country.

Purpose of the training program

The purpose of this program is to set high professional standards for leather industry. The specific goals of developing this program are as under:

- Improve the professional competence of the workforce
- Provide opportunities for recognition of skills attained through formal pathways
- Improve the quality and effectiveness of training and assessment for leather products development sector
- Enable the existing workforce to make themselves qualified in new technologies and methods

Overall objectives of training program

The main objectives of this training program are to increase employability in the leather sector consisting of individuals who can maintain high work quality and can prove to be an asset for the leather sector.

Competencies to be gained after completion of course

The main role of this course is to transform an idea into a tangible product. By the end of this course the trainee will be able to gain expertise in selection of leather, cutting, stitching and packing. Trainee will be an expert in making of a concept to a finish product. Competencies to be gained after completion of course are mentioned below:

- Module 1: Comply with Perform Personal Health and Safety Guidelines
- Module 2: Communicate the Workplace Policy and Procedure
- Module 3: Perform Basic Communication (Specific)
- Module 4: Perform Basic Computer Application (Specific)
- Module 5: Perform Cutting Operations
- Module 6: Prepare Small Parts of Leather Products²⁷
- Module 7: Stitch Leather Garments and Accessories
- Module 8: Stitch Leather Gloves
- Module 9: Perform Finishing Operations on Leather Products

Possible available job opportunities available immediately and later in the future

The job opportunities available are in the fields of cutting, stitching and finishing department of leather industry.

Trainee entry level

QUALIFICATION TITLE	ENTRY REQUIREMENTS
National Vocational Certificate Level-2 in Leather Products Development Technician (Stitcher)	The entry requirement for this qualification is 8th Grade or equivalent. The entry for assessment of this qualification is not specified.
National Vocational Certificate Level-3 in Leather Products Development Technician (Pattern Maker)	The entry requirement for this qualification is National Vocational Certificate Level-2 in Leather Products Development Technician (Stitcher) or Middle with Hands on ExperienceThe entry for assessment of this qualification is not specified.
National Vocational Certificate Level-4 in Leather Products Development Technician (Computerized Pattern Designer)	The entry requirement for this qualification is National Vocational Certificate Level-3 in Leather Products Development Technician (Computerized Pattern Designer) or GIII or Middle with 1 year work experience The entry

	for assessment of this qualification is not specified.
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Minimum qualification of trainer

B.Sc. (Hons) in Fashion Designing/Textile Engineering and minimum 01 Years of Industrial experience in relevant field or F.A and minimum 05 Years of Industrial experience in relevant field

Recommended trainer: trainee ratio

Ratio of 2: 25 is recommended.

Medium of instruction i.e. language of instruction

English/Urdu/Regional Language

Duration of the course (Total time, Theory & Practical time)

Total:720 Hours (Theory: 149 Hours & Practical: 571 Hours)

Sequence of the modules

This qualification is made up of 09 modules. In 1st module trainee will be able to learn basic Comply with Perform Personal Health and Safety Guidelines effectively with in the workplace and precautionary measures to take during performing tasks is given to the trainee. In 2nd module knowledge about Communicate the Workplace Policy and Procedure .Module 3 Perform Basic Communication (Specific). Module 4 is Perform Basic Computer Application (Specific) 1,2,3,4 can run parallel to Module 5,6,7,8 & 9

Module: 5 are related to the cutting procedures of leather skin, basic techniques to select the appropriate leather, tracing selected leather according to the pattern and cutting in different ways is mentioned in this module.

Module 6, 7 & 8 is mainly about the stitching methods. These modules include the learning to select the thread, appropriate machine and needle type for the assigned job, basic maintenance of the machine and management of workplace also included in these modules. Each module covers a range of learning components. These are intended to provide detailed guidance to teachers (for example the Learning Elements component) and give them additional support for preparing their lessons. Module: 9 give the knowledge to complete the stitched product and pack it according to the requirement of the customer. Finishing of the product covers latest techniques of polishing and trimming.

The distribution table is shown below:

National Vocational Certificate Level-2 in Leather Products Development Technician (Stitcher) Time allocation: 720 hrs.				
Module 5: Perform Cutting Operations	Module 1: Comply with Perform Personal Health and Safety Guidelines	Module 2: Communicate the Workplace Policy and Procedure	Module 3: Perform Basic Communication (Specific)	Module 4: Perform Basic Computer Application (Specific)
Module 6: Prepare small parts of leather products				
Module 7: Stitch Leather Garments and Accessories				
Module 8: Stitch Leather Gloves				
Module 9: Perform Finishing Operations on Leather Products				

Summary – overview of the curriculum

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 1: Comply Personal Health and Safety Guidelines	LU1. Identify Personal Hazards at Workplace LU2. Apply Personal Protective and Safety Equipment (PPE) LU3. Comply Occupational Safety and Health (OSH) LU4. Dispose of hazardous Waste/materials from the designated area.	6	24	30
Module 2: Communicate the Workplace Policy and Procedure	LU1. Identify workplace communication procedures LU2. Communicate at workplace LU3. Draft Written Information LU4. Review Documents	4	16	20
Module 3: Perform Basic Communication (Specific)	LU1. Communicate in a team to achieve intended outcomes LU2. Follow Supervisor's instructions as per organizational SOPs LU3. Develop Generic communication skills at workplace	6	24	30
Module 4: Perform Basic Computer Application (Specific)	LU1. Create Word Documents LU2. Use internet for Browsing	8	32	40

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 5: Perform Cutting Operations Aim: The aim of this module is to gain knowledge in selection and identification of leather skin according to desired product and in performing cutting operation according to occupational standards.	LU1: Segregate various skin/hide types LU2: Trace cutting pattern on leather skin/hide LU3: Cut and bundle the panels	12 Hours	48 Hours	60 Hours
Module 6: Prepare small parts of leather product Aim: The aim of this module is to enable the students to produce small parts of leather garments and gloves according to professional standards.	LU1: Prepare machine according to stitching requirements LU2: Stitch small parts of leather garment LU3: Prepare small parts of gloves LU4: Perform finishing operations on stitched small parts	32 Hours	128 Hours	160 Hours
Module 7: Stitch leather garments and accessories Aim: The aim of this module is to qualify the students to produce different kind of leather garments and accessories by respecting professional requirements.	LU1: Prepare the work station LU2: Trace ready shape pattern of garments components LU3: Fold different panels of leather garment LU4: Prepare front panel LU5: Prepare back panel LU6: Prepare sleeves LU7: Prepare lining LU8: Assemble garment LU9: Perform finishing operations on stitched components and garment	32 Hours	128 Hours	160 Hours

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 8: Stitch leather gloves Aim: The aim of this module is to enable the student to produce gloves according to professional standards.	LU1: Prepare the workstation LU2: Prepare back and front panels of glove LU3: Prepare the lining of glove LU4: Assemble glove LU5: Perform finishing operations on stitched gloves	32 Hours	128 Hours	160 Hours
Module 9: Perform finishing operations on leather products Aim: The aim of this module is to qualify the student in performing finishing operations on all kinds of leather products by applying quality and occupational standards.	LU1: Inspect the stitched product LU2: Perform measurement control LU3: Perform surface finishing operations LU4: Pack the final product	17 Hours	43 Hours	60 Hours

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Module-1
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Modules

Module 1: Comply with Perform Personal Health and Safety Guidelines

Objective: This Competency Standard identifies the competencies required to protect/apply occupational Safety, health and Environment at workplace according to the industry's approved guidelines, procedures and interpret environmental rules/regulations. Trainee will be expected to identify and use Personal Protective Equipment (PPE) according to the work place requirements. The underpinning knowledge regarding Observe Occupational Safety and Health (OSH) will be sufficient to provide the basis for the job at workplace.

Duration: 30 Hours

Theory: 06 Hours

Practice: 24 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1. Identify Personal Hazards at Workplace	The trainee is able to: - Identify risk to personal health - Identify hygiene and safety at work place - Identify processes - Identify tools, equipment and consumable materials that have the potential to cause harm - Report, identified risk to Health, hygiene and safety to concerned				
LU2. Apply Personal Protective and Safety Equipment (PPE)	The trainee is able to: - List the Personal Protective equipment - Select personal protective equipment in terms of type and quantity according to work				

	orders. • Wear personal protective equipment according to job requirements. • Clean personal protective equipment • Stored Personal Protective equipments in proper place after use.				
LU3. Comply Occupational Safety and Health (OSH)	The trainee is able to: • Maintain cleanliness and hygiene as per organizational policy • Comply with Health, hygiene and safety precautions before starting work • Comply organizational Health, hygiene and safety guidelines during work • Deal with resolvable problems according to prescribed procedures • Report un resolvable problems to concerned • Place the tools equipment etc at their prescribed place after				

	completion of work				
LU4. Dispose of hazardous Waste/materials from the designated area.	The trainee is able to: • Identify hazardous waste materials which needs to be disposed off • Segregate hazardous or non-hazardous waste carefully from the designated area as per approved procedure • Use proper disposal hazardous containers for dispose-off hazardous waste as per procedure • Take necessary precautions like putting masks and gloves while disposing hazardous waste/materials as per standard operating procedure				

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Module 2: Communicate the Workplace Policy and Procedure

Objective: This unit describes the performance outcomes, skills and knowledge required to develop communication skills in the workplace. It covers gathering, conveying and receiving information, along with completing assigned written information under direct supervision.

Duration: 20 Hours

Theory: 04 Hours

Practice: 16 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1. Identify workplace communication procedures	The trainee is able to: - Identify organizational communication requirements and workplace procedures with assistance from relevant authority - Identify appropriate lines of communication with supervisors and colleagues. - Seek advice on the communication method/equipment most appropriate for the task				
LU2. Communicate at workplace	The trainee is able to: Use effective				

	questioning, and active listening and speaking skills to gather and convey information • Use appropriate non-verbal behavior at all times • Encourage, acknowledge and act upon constructive feedback				
LU3. Draft Written Information	The trainee is able to: • Identify and comply with required range of written materials in accordance with organizational policy and procedures • Draft and present assigned written information for approval, ensuring it is written clearly, concisely and within designated timeframes. • Ensure written information meets required standards of				

	style, format and detail. • Seek assistance and/or feedback to aid communication skills development				
LU4. Review Documents	The trainee is able to: • Check draft for suitability of tone for audience, purpose, format and communication style • Check draft for readability, grammar, spelling, sentence and paragraph construction and correct any inaccuracies or gaps in content. • Check draft for sequencing and structure • Check draft to ensure it meets organizational requirements • Ensure draft is proofread, where appropriate, by supervisor or colleague				

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Module 3: Perform Basic Communication (Specific)

Objective: This unit describes the skills and knowledge required to assist in the development of communication competence by providing information regarding different forms of communication and their appropriate use.

By the end of this program, learners will be able, to communicate more effectively and efficiently by: working in a team, follow supervisor's instructions and develop generic communication work skills at workplace

Duration: 30 Hours

Theory: 06 Hours

Practice: 24 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1. Communicate in a team to achieve intended outcomes	The trainee is able to: • Treat team members with respect • Maintain positive relationships to achieve common organizational goals • Get work related information from team • Identify interrelated work activities to avoid confusion • Adopt communication skills, which are				

	designed in a team. • Identify problems in communication with a team • Resolve Communication barrier through discussion and mutual agreement				
LU2. Follow Supervisor's instructions as per organizational SOPs	The trainee is able to: • Receive the instructions from Supervisor • Carry out the instructions of the supervisor • Report to the supervisor as per organizational SOPs				
LU3. Develop Generic communication skills at workplace	The trainee is able to: • Develop basic reading skills • Develop Basic writing Skills • Develop basic listening skills				

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Module 4: Perform Basic Computer Application(Specific)

Objective: This unit describes the skills and knowledge required to use spreadsheet to prepare a page of document, develops familiarity with Word, Excel, Access, PowerPoint, email, and computer graphics basics.

It applies to individuals who perform a range of routine tasks in the workplace using a fundamental knowledge of spreadsheets, Microsoft office and computer graphics in under direct supervision or with limited responsibility.

Duration: 40 Hours

Theory: 08 Hours

Practice: 32 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1. Create Word Documents	The trainee is able to: • Open word processing application • Create a word document • Customize page layout with relevant name setting • Set up page in a word document • Edit word document as required • Use simple formatting tools when creating the document • Save word document to directory • Insert table in a word document • Insert appropriate images into document as necessary • Insert header/footer in a word document				

	• Insert section break in a word document • Set style in word document • Select basic Print settings • Print the document				
LU2. Use internet for Browsing	The trainee is able to: • Use search engines to open website • Search data on different topics • Refine search to increase relevance of information or content • Navigate a website to access the information or content required				

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Module-5
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Module 5: Perform Cutting Operations

Objective of the module: The aim of this module is to gain knowledge in selection and identification of leather skin according to desired product and in performing cutting operation according to occupational standards.

Duration: 60 Hours **Theory:** 12 Hours **Practical:** 48 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1: Segregate various skin/hide types	The trainee will be able to: - Identify and mark defects in skin/hide - Differentiate various shades of leather skin/hide correctly - Measure skin/hide thickness using leather gauge meter - Differentiate skins/hides as per their hardness	- Learning to differentiate between leather & Synthetic material - Understanding of various leather types - Understanding of various leather skin/hide quality parameters (shade, grain, split, Colour matching stretch-ability, Softness / hardness, thickness etc.) - Knowledge of various defects in skin/hide (butcher cuts, warble fly, tick marks etc.) - Learning about Leather measurement techniques; usage of Gauge meter & measuring tools - Understanding about parts of Skin/Hide	Total 10 Hours Theory: 03 Hours Practical: 07 Hours	Inspection Tables Samples of different types of Leather(Nubuck, Suede, aniline, burnish, Split, glaze etc.) Swatches of synthetic material(Non-leather) like PU & PVC, TPR coating, Ammara, Measurement Tape, Gauge Meter Magnifying Glass Steel Scale (12 inch,24 inch,36 inch) Personal protective equipment (Safety gloves, Mask, Apron etc.) Testing Station with proper light	Theory Classroom Practical Workshop

LU2: Trace cutting pattern on leather skin/hide	The trainee will be able to: - Align skin/hide for cutting according to the Line of Tightness and Line of Stretch-ability - Trace panels as per product requirement considering required skin/hide quality while maintaining nesting efficiency/average	- Understanding lines of tightness and stretch-ability of leather skin/hide / Synthetic Material - Learning of marker making techniques - Understanding about various product components & their panels - Understanding about nesting/manipulation efficiency. - Knowledge about Tracing Techniques. - Identification of different parts of patterns of various products - Understanding of basic matching of leather components as per required product - Knowledge of basic tracing tools and their usage as per leather type	Total: 30 Hours Theory: 06 Hours Practical: 24 Hours	Cutting Pattern Cutting Table with Light Leather skin/Hide / Synthetic	Theory Classroom Practical Workshop
LU3: Cut and bundle the panels	The trainee will be able to: - Cut panels as per tracing - Check quality of cut panels and prepare a report - Mark and bundle panels according to product requirements (shade, grain, component etc.)	- Knowledge about single or multi-layer cutting - Knowledge about Reinforcement Material (fusing material/Cotton Tape etc.) and its usage - Understanding of different types of cutting (Direct Knife, Scissors, Electric Cutter, Press & Laser Cutting, etc.) - Understanding of quality criteria for cutting of leather / Synthetic material according to cut panels - Knowledge of End Cutting Tool - Understanding the procedure of sizing &	Total 20 Hours Theory: 03 Hours Practical: 17 Hours	Cutting Knife Cutting Table Teflon Cutting sheet (36"x36" half inch thickness) Cutting Mat Electrical cutter (10 Inch) Scissors Numbering Machine Personal protective equipment (Apron,	Theory Classroom Practical Workshop

		numbering/marking as per size/article/shade/operation to make the final bundle		Safety glove, goggles, Mask, Rubber Mat etc.)	
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Module-6
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Module 6: Prepare Small Parts of Leather Products

Objective of the module: The aim of this module is to enable the students to produce small parts of leather garments and gloves according to professional standards.

Duration: 160 Hours

Theory: 32 Hours

Practical: 128 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1: Prepare machine according to stitching requirements	The trainee will be able to: - Clean the workstation and machine from dust, fluff and oil - Set Needle and Thread according to product material - Adjust stitch parameters and foot pressure according to product requirement - Prepare the workplace for the work operation (put up of cut panels to sew, technical file/ sewing instruction/sketch)	- Understanding of workplace organization and workplace cleaning - Understanding of machine cleaning, oiling and basic maintenance requirements - Knowledge about different kinds of stitching machines - Knowledge of threading, bobbin winding, , adjustment of needle, bobbin & Bobbin case - Learning of product design information (technical file/sketch) - Know-how about various types of needles and understand their usage - Know-how about various types of threads - Knowledge about various components of stitching machines - Learning the process sequence for leather products manufacturing - Understanding of Stitch per Inch(SPI) - Understanding of the Adjustment of pressure foot	Total 05 Hours Theory: 01 Hours Practical: 04 Hours	Stitching Machines with complete accessories like folder, Stitch Gauge, Single Needle Flatbed & Double Needle stitching machine Post Bed(Single & Double Needle stitching machine Cylinder Arm Stitching Machine Zig Zag Stitching Machine Overlock Machine Button Attach Machine Button Stitch Machine	Theory Classroom Practical Workshop

				Button Hole Machine Flat Lock (Three Needle Machine) Bar tack Machine Clipper, Scissors, Hammer Oil Can Screw Driver Set & L Key Set	
LU2: Stitch small parts of leather garment	The trainee will be able to: • Apply fusing on specified areas of the panel • Apply adhesive to the designated area of panel in appropriate quantity • Fold panel as per tracing according to adhesive specifications • Press the folded area with a hammer homogeneously • Stitch the component as per sample or instructions • Control the stitched small parts of leather garment according to the quality requirements • Bundle stitched components according to sizes / number marking	• Knowledge of Marking before Skiving /folding/ stitching the component as per requirement • Understanding the purpose of seam allowance • Understanding of commonly used measuring systems • Understanding about skiving process as per product requirement. • Knowledge about fusing materials and their applications. • Knowledge about kinds of seams like Inseam, top seam, double top seam, lapped seam etc. • Knowledge about the thread tension during stitching • Knowledge about adhesive, application and folding of required panel with the help of hammer/ machine • Understanding of folding requirements of various goods and their components & usage of folding • Understanding of the product specification	Total 80 hours Theory: 16 Hours Practical: 64 Hours	Machine Light /Needle Light Marble Slab Iron / Fusing Press Iron Stand Binding Machine Over Lock Machine Double Needle Lock Stitch Machine Cylinder Arm Machine Skiving Machine Personal Protective Equipment(Eye	Theory Classroom Practical Workshop

	• Prepare and submit production report on prescribed format	chart/ technical sheet/ quality manual • Knowledge of various panels of leather products and their shapes • Understanding about the usage of Stitch Gauge • Knowledge of different stitch types and their uses • Knowledge about ironing as per product requirement • Knowledge about various accessory attachments of products • Knowledge about numbering & bundling after stitching different panels as per guidelines • knowledge to fill the Job Card		Guard)	
LU3: Prepare small parts of gloves	The trainee will be able to: • Prepare Glove Thumb as per sample or instructions • Prepare Glove Cuff as per sample or instructions • Prepare Glove Fourchette as per sample or instructions • Control the stitched small parts of gloves according to the quality requirements • Prepare and submit production report on prescribed format	• Understanding the purpose of seam allowance for Gloves • Learning about commonly used measuring systems for Gloves • Knowledge about kind of seams like Piping, Inseam, top seam, lapped seam etc. for gloves • Knowledge about use of Fusing on required panel of the gloves • Knowledge of various panels of Gloves and their shapes • Understanding the usage of Stitch Gauge for Gloves • Knowledge about different stitch types and their uses for Gloves • Knowledge about numbering & bundling after stitching different panels as per guidelines for Gloves	Total 60 Hours Theory: 12 Hours Practical: 48 Hours	Screw Driver Set, L Key Set Zigzag stitching Machine Machine Light / Needle Light Binding Machine Over Lock Machine Double Needle Lock Stitch Machine Clipper, Scissors, Measuring Tape, Oil Can	Theory Classroom Practical Workshop

		knowledge to fill the Job Card for Gloves		Tweezer Personal Protective Equipment (Eye Guard)	
LU4: Perform finishing operations on stitched small parts	The trainee will be able to: - Trim extra threads and flash material from stitched components - Clean tracing lines from stitched components - Clean the stitched component for dust, oil and adhesive marks - Clean the workplace after finishing the work - Check the ready sewn leather garment according to the product design and quality requirements - Prepare and submit report on prescribed format	- Understanding of correct trimming of extra Threads & Fabric / leather from edges - Understanding of cleaning requirements from unnecessary stains - Basic Quality check of folded/stitched components as per requirement - Basic knowledge of housekeeping	Total 15Hours Theory: 03 Hours Practical: 12 Hours	Clipper Scissors Measuring tape Scale Crepe Rubber	Theory Classroom Practical Workshop

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Module-7
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Module 7: Stitch Leather Garments and Accessories

Objective of the module: The aim of this module is to qualify the students to produce different kind of leather garments and accessories by respecting professional requirements.

Duration: 160 Hours **Theory:** 32 Hours **Practical:** 128 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1: Prepare the workstation	The trainee will be able to: - Prepare the workstation for work operation (Leather material, set the suitable needle and sewing thread, perform machine calibration) - Perceive the product information	- Understanding of workplace organization and workplace cleaning - Understanding of machine cleaning, oiling and basic maintenance requirements - Understanding of product design information (technical file/sketch) - Knowledge of various types of needles and understanding their usage - Knowledge of various types of threads - Knowledge of various components of stitching machines - Understanding about usage of various types of stitching machines - Knowledge about process sequence for leather products manufacturing - Understanding of Stitch per Inch(SPI) - Knowledge about Adjustment of pressure foot	Total 05 Hours Theory: 01 Hours Practical: 04 Hours	Stitching Machine with complete accessories like folder, Stitch Gauge, Single Needle Flatbed & Double Needle stitching machine Post Bed(Single & Double Needle stitching machine Cylinder Arm stitching machine Overlock Machine Button Attach Machine Button Stitch Machine Button Hole Machine Flat Lock (Three Needle Machine) Bar tack Machine	Theory Classroom Practical Workshop

				Clipper, Scissors, Hammer Oil Can Screw Driver Set & L Key Set	
LU2: Trace ready-shape pattern of garment components	The trainee will be able to: - Place ready-shape pattern on the already cut panel according to seam allowance required for the component - Trace pattern on the panel (for leather, adhesive and lining) - Bundle the panels according to size (for leather, adhesive and lining)	- Understanding the line of tightness and stretchability of leather skin/hide / Synthetic material - Understanding about parts of Skin/Hide - Understanding about panels of various types of leather garments and products - Knowledge about process sequence for leather products manufacturing - Identification of different parts of pattern of various products - Knowledge of Seam allowances used for different types of leather and stitching machines - Understanding about design instructions - Knowledge about the use of tracing tools according to material - Understanding of component placement with the help of tracing pattern - Knowledge of Marking on material with the help of tracing pattern - Learning marker making techniques - Understanding of nesting/manipulation efficiency - Know-how of matching of leather components as per required product	Total 10 Hours Theory: 02 Hours Practical: 08 Hours	Ready-shape Pattern Tracing Table with Lights Technical file, sketch, instructions Samples of various leather garments	Theory Classroom Practical Workshop
LU3: Fold different panels of leather	The trainee will be able to: Apply fusing on specified	- Knowledge about edge treatment as per the technical details - Knowledge of different types of adhesives and	Total 10 Hours	Hammers(Wooden, Plastic , Rubber and	Theory Classroom

garment	areas of the panel • Apply adhesive to the designated area of panel in appropriate quantity • Fold panel as per tracing according to adhesive specifications • Press the folded area with a hammer homogeneously	their use against various kind of material • Knowledge about different types of reinforcement materials and their applications • Knowledge about folding of required panel with the help of hammer/ machine • Understanding of different types of hammer and hammering process	Theory: 02 Hours Practical: 08 Hours	Iron) Rubber sheet Marble Slab Binding Machines Skiving machine Scissors, Clipper	Practical Workshop
LU4: Prepare Front panel	The trainee will be able to: • Stitch the front panel as per sample or instructions • Stitch related small parts with front panel on specific traced area • Control the result of the sewing process according to quality standards and the sewing instruction • Bundle prepared front panels according to sizes / number marking	• Understanding the purpose of seam allowance • Understanding of different types of stitches like Lock Stitch & Chain Stitch • Understanding the commonly used measuring systems • Knowledge about kind of seams like Inseam, top seam, double top seam, lapped seam etc. • Understanding about folding requirements of various goods and their components & usage of folding • Understanding the product specification chart/ technical sheet/ quality manual • Knowledge of various panels of leather products and their shapes • Understanding the usage of Stitch Gauge • Knowledge of different stitch types and their uses • Knowledge about ironing as per product requirement • Knowledge about numbering & bundling after stitching the different panels as per guidelines • Basic knowledge to fill the Job Card	Total 33 Hours Theory: 06 Hours Practical: 27 Hours	Bar tack Machine Single Needle and Double Needle Lock Stitch Machine Flat Bed Zigzag stitching Machine Binding Machine Needles Different types of machine foot Machine light / Needle light Personal Protective Equipment Eyelet Machine	Theory Classroom Practical Workshop

				Hole Punches Teflon Sheet Steel Frame for Stretchable Panels Iron / Fusing Press Iron Stand Button Hole Machine Overlock Machine	
LU5: Prepare Back panel	The trainee will be able to: - Stitch the back panel as per sample or instructions - Stitch related small parts with back panel on specific traced area - Control the result of the sewing process according to quality standards and the sewing instruction - Bundle prepared back panels according to sizes / number marking	- Understanding the design of the product. e.g. Belt, pleats, foam padding, straps, and air vents etc. - Understanding the components' folding of back panel & folding usage - Understanding the usage of Stitch Gauge e.g. 2mm stich, 6mm stich, 1 cm stich etc. - Knowledge about ironing as per product requirement - Knowledge about numbering & bundling after stitching different panels as per guidelines - Basic knowledge to fill the Job Card	Total 30 Hours Theory: 06 Hours Practical: 24 Hours	Bar tack Machine Single Needle and double needle Lock Stitch Machine Flat Bed Zigzag stitching Machine Binding Machine Needles Different types of machine foot Needle light Personal Protective Equipment Eyelet Machine Hole Punches &	Theory Classroom Practical Workshop

				Teflon Sheet Steel Frame for Stretchable Panels Iron Press Iron Stand Button Hole Machine Overlock Machine	
LU6: Prepare sleeves	The trainee will be able to: - Stitch related small parts with sleeves on specific traced area - Stitch the sleeve as per product requirement - Control the result of the sewing process according to quality standards and the sewing instruction - Bundle prepared sleeves according to sizes / number marking	- Understanding the design of product e.g. Flap Pocket, Zip Pocket, Logo Embroidery etc. - Knowledge of identification of upper and under sleeve - Understanding to make arm-hole and sleeve length accurately - Understanding the high point shoulder (Centre Point) of sleeve - Understanding of centre back (neck) length of sleeve - Understanding of product technical sheet and quality manual - Knowledge of different types of Cuff and its usage - Knowledge about numbering & bundling after stitching different panels as per guidelines	Total 20 Hours Theory: 04 Hours Practical: 16 Hours	Bar tack Machine Single Needle and Double Needle Lock Stitch Machine Flat Bed Zigzag stitching Machine Binding Machine Needles Different types of machine foot Machine light / Needle light Personal Protective Equipment Eyelet Machine Hole Punches	Theory Classroom Practical Workshop

				Teflon Sheet Steel Frame for Stretchable Panels Iron / Fusing Press Iron Stand Button Hole Machine Overlock Machine	
LU7: Prepare lining	The trainee will be able to: - Stitch the lining panel as per sample or instructions - Stitch related small parts with lining panel on specific traced areas - Control the result of the sewing process according to quality standards and the sewing instruction - Attach required labels with lining at specific place	- Understanding the basic purpose of linings and its uses in different kinds of garment like in Sports, Fashion, Protective, motorbike apparel etc. - knowledge about different types of Fabric being used in the lining materials like Fleece, Polyester, Thinsulate, Wool, Nomex, cherry, satin, cotton etc. - Knowledge of Needle and thread to stitch the lining - Knowledge about the Front , Back and sleeves panel of the lining material - Knowledge about basic stitching of lining - Knowledge about overlock on different panels of lining - Understand the placement of size/content label, customer logo, side logo, Velcro, zip pocket, mobile pocket etc. during the stitching of lining on specified areas. - Understanding of technical Sheets and Quality Manuals	Total 20 Hours Theory: 04 Hours Practical: 16 Hours	Bar tack Machine Single Needle and double needle Lock Stitch Machine Flat Bed Zigzag stitching Machine Binding Machine Needles Different types of machine foot Machine light / Needle light Personal Protective Equipment Eyelet Machine Hole Punches	Theory Classroom Practical Workshop

				Teflon Sheet Steel Frame for Stretchable Panels Iron /Fusing Press Iron Stand Button Hole Machine Overlock Machine	
LU8: Assemble garment	Trainee will be able to: • Attach front and back panel as per sample or instructions • Attach both sleeves with arm holes • Attach collar/belt and/or other related small parts with the body on specific areas • Attach lining with the shell on specific areas • Attach accessories with the product according to design requirement • Control the result of the sewing process according to quality standards and the sewing instruction • Finalize the garment with closing stitches	• Knowledge about final garment assembly process sequence (attaching front, back, sleeves and collar of the garment) • Understanding of side seam, shoulder seam and joining of collar • Learning to stitch different lining material in to the shell • Understanding of joining sleeves with shell of the garment • Knowledge to trim spew material from the garment • Knowledge about piped seam • Knowledge to finalize garment by stitching zip/Velcro/Button/Button Hole	Total 20 Hours Theory: 05 Hours Practical: 15 Hours	Bar tack Machine Single Needle and double needle Lock Stitch Machine Flat Bed Zigzag stitching Machine Binding Machine Needles Different types of machine foot Machine light / Needle light Personal Protective Equipment Eyelet Machine Hole Punches	Theory Classroom Practical Workshop

				Teflon Sheet Steel Frame for Stretchable Panels Iron / fusing Press Iron Stand Button Hole Machine Overlock Machine	
LU9: Perform finishing operations on stitched components and garment	Trainee will be able to: - Trim extra threads and flash material from stitched components - Clean tracing lines from stitched components - Clean the stitched component for dust, oil and adhesive marks - Control the ready sewn leather garment according to the product design and quality requirements - Prepare and submit production report on prescribed format	- Understanding of correct trimming of extra Threads & Fabric/leather from edges - Basic Quality check of folded/stitched components as per requirement - Understand basic techniques for spew threads by clipper or through burning - Understanding to clean the garment from marking lines, oil stain, adhesive stain etc. - Understanding of finish and quality requirements of leather garments - Basic knowledge of housekeeping	Total 12 Hours Theory: 02 Hours Practical: 10 Hours	Report Template Adhesive remover Clipper Thread Burner	Theory Classroom Practical Workshop

LEATHER PRODUCTS DEVELOPMENT TECHNICIAN



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Module-8
CBT CURRICULUM
National Vocational Certificate Level 2

Version 1 - April, 2019

Module 8: Stitch Leather Gloves

Objective of the module: The aim of this module is to enable the Student to produce gloves according to professional standards.

Duration: 160 Hours **Theory:** 32 Hours **Practical:** 128 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1: Prepare the workstation	The trainee will be able to: - Prepare the sewing machine according to the sewing operation (set the suitable needle and sewing thread, perform machine calibration) - Perceive the product information	- Understanding of workplace of organization and workplace cleaning - Understanding of machine cleaning, oiling and basic maintenance requirements - Understanding of product design information (technical file/sketch) - Knowledge about various types of needles and understanding their usage - Knowledge about various types of threads - Know various components of stitching machines - Understanding the usage of various types of stitching machines - Knowledge about process sequence for leather products manufacturing - Knowledge about various accessory attachments of products - Understanding of Stitch per Inch(SPI) - Knowledge about the Adjustment of pressure foot	Total 05 Hours Theory: 01 Hours Practical: 04 Hours	Single Needle and double needle Lock Stitch Machine Flat Bed Binding Machine Zigzag stitching Machine Cylinder Arm Machine Single Needle Lock Stitch Machine Post Bed Button Press Machine Eyelet Machine Skiving Machine Overlock Machine	Theory Classroom Practical Workshop
LU2: Prepare front and back panels of Glove	The trainee will be able to: - Attach small parts (Finger Tips, Logo, Reflective Piping, patches etc.) with Back and Front Panels at specified areas - Stitch Thumb with Front	- Knowledge about various glove types and understanding their usage - Understanding the process sequence for leather gloves manufacturing - Understanding the various glove materials like Thread type, Zip, Velcro, Logo, Conductive Fabric/Thread /Leather, Protective	Total 60 Hours Theory: 16 Hours	Single Needle and Double Needle Lock Stitch Machine Flat Bed Binding Machine Zigzag stitching	Theory Classroom Practical Workshop

	panel - Stitch Elastic on Back or Front panel of the gloves with appropriate machine - Stitch Fourchette with the Back or Front panel - Stitch Cuff / Velcro with the Back or Front panel - Control the result of the sewing process according to quality standards and the sewing instruction	components(Knuckle, Air vent, Gels, Foam Padding) Button and other attachments - Understanding the panels of various types of leather gloves - Understanding of gloves stitching parameters like Stitch Per Inch (SPI), Measurements - Knowledge of different types of Thumbs, Fourchettes, Cuff - Knowledge of Stitching different panels together along with the attachments like Cuff/Velcro/Logo or other protective component	Practical: 44 Hours	Machine Cylinder Arm Machine Single Needle Lock Stitch Machine Post Bed Button Press Machine Eyelet Machine Skiving Machine Overlock Machine	
LU3: Prepare Lining of the Glove	The trainee will be able to: - Stitch glove lining as per sample or instructions - Attach required labels with lining at specified areas - Control the result of the sewing process according to quality standards and the sewing instruction	- Basic knowledge about different types of Fabric being used in the lining materials like Fleece, Polyester Thinsulate, Wool, Nomex, Kevlar, Hypora etc. - Basic purpose of linings used in the different kinds of Gloves like in Sports, Safety, Fashion and Protective gear - Knowledge about the Front and Back panel of the lining material - Understanding basic stitching of lining - Understanding the placement of size/content label during the stitching of lining on specified areas. - Understanding of technical Sheets and Quality Manuals	Total 30 Hours Theory: 02 Hours Practical: 28 Hours	Single Needle and Double Needle Lock Stitch Machine Flat Bed Binding Machine Zigzag stitching Machine Cylinder Arm Machine Single Needle Lock Stitch Machine Post Bed Button Press Machine Eyelet Machine Skiving Machine	Theory Classroom Practical Workshop

				Overlock Machine	
LU4: Assemble Gloves	The trainee will be able to: - Assemble back and front panel of the gloves as per sample or instructions - Attach stitched lining with the shell - Attach accessories with the product according to design requirements - Attach piping (cuff binding, self-folding etc.) with the gloves - Finalize the gloves with closing stitches - Control the result of the sewing process according to quality standards and the sewing instruction	- Knowledge about completing Gloves process by stitching front and back panel of the gloves - Understanding to stitch different lining material into the shell - Understanding the use of finger shape pipe & stick to take right side out for the final closing process - Knowledge to trim spew material from the gloves - Knowledge about how to finish gloves by completing the final procedures like piped seam, binding (French and U-shape), Self-Folding attachment of remaining accessories and final lock stitches	Total 50 Hours Theory: 10 Hours Practical: 40 Hours	Finger Shape Sticks Pipe Wooden stick Wooden Hammer Marble Slab with Rubber sheet	Theory Classroom Practical Workshop
LU5: Perform finishing operations on stitched gloves	The trainee will be able to: - Trim extra threads and flash material from stitched components - Clean tracing lines from stitched components - Clean the stitched component for dust, oil and adhesive marks	- Understanding the basic techniques for spew threads by clipper or through burning - Understanding to clean the gloves from marking lines, oil stain, adhesive stain etc. - Knowledge about buffing materials and their uses. - Knowledge of differentiating ironing tools as per the sizing (Small, Medium, Large, XL etc.) and types(Kids, Gents, Ladies) of Gloves - Knowledge of removing wrinkles by ironing of	Total 15 Hours Theory: 03 Hours Practical: 12 Hours	Iron Base Iron Hand of Different sizes Scale, Stick, Hammer Adhesive remover Thread Burner, Clipper	Theory Classroom Practical Workshop

	• Adjust glove shape using appropriate shaping tools • Control the result of the sewing process according to quality standards and the sewing instruction Prepare and submit production report on prescribed format	gloves by using appropriate tools like Scale, Hammer, and Stick etc. • Understanding about finish and quality requirements of leather gloves • Understanding the usage of various glove shaping tools • Understanding the workplace organization • Understanding the given instructions		Scissors Buffing Machine Buffing Brushes Tag Gun	
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LEATHER PRODUCTS DEVELOPMENT TECHNICIAN



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Module-9
CBT CURRICULUM
National Vocational Certificate Level 2

Version 1 - April, 2019

Module 9: Perform Finishing Operations on Leather Products

Objective of the module: The aim of this module is to qualify the student in performing finishing operations on all kinds of leather products by applying quality and occupational standards.

Duration: 60Hours **Theory:** 17 Hours **Practical:** 43 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1: Inspect the stitched product	The trainee will be able to: - Clean the product for dust and stains - Inspect the product for all quality requirements as per product design - Mark all defects / noncompliance areas on the product with prescribed tools - Prepare inspection report on the prescribed format	- Knowledge about the basic manufacturing process of leather products - Understanding about basic techniques for spew threads by clipper or through burning - Learning to clean the stitched product from marking lines, oil stain, adhesive stain etc. - knowledge of defects like stitching defects, damaged parts, puckering of leather etc. - Knowledge to mark the defects through chalk or paper tape - Knowledge to complete the basic quality report	Total 10 Hours Theory: 02 Hours Practical: 08 Hours	Adhesive remover Thread Burner, Clipper Measurement Tape Scissors, Format of Quality Inspection report	Theory Classroom Practical Workshop
LU2: Perform measurement control	The trainee will be able to: - Control the measurement of the leather product according to the measurement chart - Check the product for required accessories and attachments - Prepare inspection reports	- Understanding about sizing system like UK, European, USA - Understanding of basic measuring units like; mm, cm, inches etc. - Knowledge to understand technical sheet (specification) and to check all given accessories for the product development - Knowledge to complete the basic inspection report	Total 15 Hours Theory: 08 Hours Practical: 07Hours	Size Charts Measuring Tape Scale 12 Inch & 36 Inches Format of Inspection Sheet & Technical Sheet	Theory Classroom Practical Workshop

	on the prescribed format				
LU3: Perform surface finishing operations	The trainee will be able to: - Adjust shape of gloves using appropriate equipment - Apply appropriate chemicals for surface treatment of leather product as per fashion style - Apply wax on leather product as per surface shine requirement	- Knowledge about finished product - Basic knowledge of available pigments/chemicals for the finishing dyes e.g. wax, Filler (creams), lacquer, binder etc. - Understanding the application of dyes for the related product by hand or by spray gun - Understanding of waxing application by hand or machine - Understanding the hazards and risks of surface treatment chemicals	Total 25 Hours Theory: 05 Hours Practical: 20 Hours	Spirit Lamp Spray Booth Buffing Machine Spray Gun Thread cutter Apron	Theory Classroom Practical Workshop
LU4: Pack the final product	The trainee will be able to: - Apply tags and labels as per company or customer requirements - Pack the product as per shipment and customer requirements - Apply labels (bar code, identification etc.) on the package as per shipment and customer requirements - Prepare packing report on the prescribed format	- Understanding the usage of various tagging tools e.g. Tag Gun, Stapler, Marking with Marker, Bar Code Sticker, Hang Tag, Stamping, Tapping with branding, RFID Stickers, - Understanding the structure of the product and taking precautionary measures to maintain the shape of the product during shipping/storage - Knowledge the shipping instructions from customer. - Knowledge to fill the basic packing report	Total 10 Hours Theory: 02 Hours Practical: 08 Hours	Ready product Measuring tape Cutter Tape Dispenser Stapler Bar code printer Bar code scanner Carton Strapping machine Weighing scale Packing instruction Form Tag Gun	Theory Classroom Practical Workshop

General assessment guidance for *Leather Product Development Technician*

Good practice in Pakistan makes use of sessional and final assessments, the basis of which is described below. Good practice by vocational training providers in Pakistan is to use a combination of these sessional and final assessments, combined to produce the final qualification result.

Sessional assessment is going on all the time. Its purpose is to provide feedback on what students are learning:

- to the student: to identify achievement and areas for further work
- To the teacher: to evaluate the effectiveness of teaching to date, and to focus future plans.

Assessors need to devise sessional assessments for both theoretical and practical work. Guidance is provided in the assessment strategy

Final assessment is the assessment, usually on completion of a course or module, which says whether or not the student has "passed". It is – or should be – undertaken with reference to all the objectives or outcomes of the course, and is usually fairly formal. Considerations of security – ensuring that the student who gets the credit is the person who did the work – assume considerable importance in final assessment.

Methods of assessment

For lessons with a high quantity of theory, written or oral tests related to learning outcomes and/ or learning content can be conducted. For workplace lessons, assessment can focus on the quality of planning the related process, the quality of executing the process, the quality of the product and/or evaluation of the process.

Methods include direct assessment, which is the most desirable form of assessment. For this method, evidence is obtained by direct observation of the student's performance.

Examples for direct assessment of a Leather Product Development Technician include:

- Work performances, for example tracing a pattern on Leather, Grading of Pattern Manually/CAD/CAM, Stitching leather components, make a mood board; Drawing a leather product in graphic designing software, perform finishing operation on leather product, preparing a job report.
- Demonstrations, for example demonstrating cutting of leather by tracing pattern on leather, selection of leather before cutting, grain and color matching.
- Direct questioning, where the assessor would ask the student why he is using the current material for the said job, or how the student can differentiate in Ladies & Gents Patterns or between lining pattern and cutting pattern, how a job can be performed using various techniques including the future trends.
- Paper-based tests, such as multiple choice or short answer questions on material management, machine operations, hand tools, finishing, information about Stitch Per Inch, Rendering figure templates, CAD/CAM operations or developing productive working relationships with associates.

Indirect assessment is the method used where the performance could not be watched and evidence is gained indirectly.

Examples for indirect assessment of a Leather Product Development Technician include:

- Work products, such as a completed leather product.
- Workplace documents, such as list of materials designing style used in developing the product, Sketch Book or other kind of projects.

Indirect assessment should only be a second choice. (In some cases, it may not even be guaranteed that the work products were produced by the person being assessed.)

Principles of assessment

All assessments should be valid, reliable, fair and flexible:

Fairness means that there should be no advantages or disadvantages for any assessed person. For example, it should not happen that one student gets prior information about the type of work performance that will be assessed, while another candidate does not get any prior information.

Validity means that a valid assessment assesses what it claims to assess. For example, if complex designing skills are to be assessed and certificated, the assessment should involve performance criteria that are directly related to that designing activity. An interview about the effect of the designing processes on different leather products would not meet the performance criteria.

Reliability means that the assessment is consistent and reproducible. For example, if the work performance of designing and stitching a product has been assessed, another assessor (e.g. the future employer) should be able to see the same work performance and witness the same level of achievement.

Flexibility means that the assessor has to be flexible concerning the assessment approach. For example, if there is a power failure during the assessment, the assessor should modify the arrangements to accommodate the students' needs.

Assessment strategy for *Leather Product Development Technician*

This curriculum includes 09 modules:

- Module 1: Comply with Perform Personal Health and Safety Guidelines
- Module 2: Communicate the Workplace Policy and Procedure
- Module 3: Perform Basic Communication (Specific)
- Module 4: Perform Basic Computer Application (Specific)
- Module 5: Perform Cutting Operations

- Module 6: Prepare Small Parts of Leather Products²⁷
- Module 7: Stitch Leather Garments and Accessories
- Module 8: Stitch Leather Gloves
- Module 9: Perform Finishing Operations on Leather Products

Sessional assessment

The sessional assessment for all modules shall be in two parts: theoretical assessment and practical assessment. The sessional marks shall contribute to the final qualification.

Theoretical assessment for all learning modules must consist of a written paper lasting at least one hour per module. This can be a combination of multiple choice and short answer questions.

For practical assessment, all procedures and methods for the modules must be assessed on a sessional basis. Guidance is provided below under Planning for assessment.

Final assessment

In general, the final assessment shall be conducted in two parts: theoretical assessment and practical assessment. The final assessment marks shall contribute to the final qualification.

The final theoretical assessment shall consist of two sub-parts. Part A shall last for 2 hours and shall consist of half multiple choice and half short-answer questions. Part B shall last for 1 hour and shall consist of short answer and at least two extended answer questions.

For the final practical assessment, each student shall be assessed over a period of two days, with two 3-hour sessions on each day. This represents a total of four sessions comprising 12 hours of practical assessment for each student. During this period, each student must be assessed on his/her ability to produce leather Garment or Glove as per drawing.

The final assessment for each certificate shall be conducted separately comprising of following modules in each certificate;

National Vocational Certificate Level 2 in Leather Products Development Technician (Stitcher)

- Module 1: Comply with Perform Personal Health and Safety Guidelines
- Module 2: Communicate the Workplace Policy and Procedure
- Module 3: Perform Basic Communication (Specific)
- Module 4: Perform Basic Computer Application (Specific)
- Module 5: Perform Cutting Operations
- Module 6: Prepare Small Parts of Leather Products²⁷
- Module 7: Stitch Leather Garments and Accessories
- Module 8: Stitch Leather Gloves
- Module 9: Perform Finishing Operations on Leather Products National Vocational

The assessment team

The number of assessors must meet the needs of the students and the training provider. For example, where two assessors are conducting the assessment, there must be a maximum of five students per assessor. In this example, a group of 20 students shall therefore require assessments to be carried out over a four-day period. For a group of only 10 students, assessments would be carried out over a two-day period only.

Planning for assessment

- Sessional assessment: assessors need to plan in advance how they will conduct sessional assessments for each module. The tables on the following pages are for assessors to use to insert how many hours of theoretical and practical assessment will be conducted and what the scheduled dates are.

- Final assessment: Training providers need to decide ways to combine modules into a cohesive two-day final assessment program for each group of five students. Training providers must agree the furniture articles for practical assessments in advance.

Complete list of tools and equipment

Sr. No.	Name of Item/ Equipment/ Tools	Specification	Quantity	Unit
1	Awl Needle	Standard size	5	Nos.
2	Adhesive Tape Roller	Tape Roller to hold the Tape	5	Nos.
3	Announcement system	Wireless Mic, minimum 12 inch speaker, Battery Support, AUX & Bluetooth support	1	No.
4	Bar Code Printer	8 MB Flash, 8 MB SD Ram, Print Width: 4.09"/104mm, Print Length: 39"/990mm, Print speed: 5"	1	No.
5	Bar Code Scanner	Illumination LED's: 617nm+-30nm, Motion Tolerance: 10cm/sec standard, Aimer: Green LED aimer526nm, reading angle : Skew 40 angle, pitch 40 angle, Supported: read standard 1D, PDF, 2D, Postal, & OCR symbologies	1	No.
6	Bar tack Machine	Computerized Heavy, Single Needle	1	No.
7	Binding Machine	Arm Diameter 46mm, Sewing Speed 2500 rpm; Stitch Length 5.5mm; height of Pressure foot 10mm, Needle DPX-17	1	No.
8	Bobbin	Various sizes according to machines	75	Nos.
9	Bobbin Case	For Stitching Machines	75	Nos.
10	Brushes	Paint Brush of assorted sizes for the fashion designing purpose(Complete set 1-5)	25	Set.
11	Buffing Machine	8" Buffer Durable 0.5 Hp; 110 V; 3.1 Amp, Offload speed 3450 RPM, CUL Listed Long Shaft 6 3/4 inch, Soft-center Buff 6-8 inch	1	No.
12	Button Attach Machine	Computerized for Heavy Garments, High Speed, with Button Holing Sewing System	1	No.
13	Button Press Machine	Button Press Machine along with air compressor machine	1	No.
14	Button Stitch Machine	Computerized for Heavy Garments, High Speed, with Button Holing Sewing System	1	No.
15	CAD/CAM Software	Electra/Assist Bulmer or other software used for the computerized pattern making	1	No.

16	Carton Strapping Machine	Shrinking Force 259 Kg, Manual Strapping Tool	1	No.
17	Cleaning Brush	Small Brushes for the machine cleaning	25	Nos.
18	Clipper / Trimmer	Thread Clipper/Trimmer; Standard size	25	Nos.
19	Computer Set	Minimum specifications: Screen 17 Inch, Ram 8 GB, 500GB Hard Drive, Core i5 Processor (or equivalent), Mouse, Key Board, VGA Cable & Data Cables	25	Set.
20	Cutting Die	Made with Iron, Die of different shapes to cut the panels	5	Set.
21	Cutting Mat	Cutting Mat for Garments Pattern Size: 25x36 inch	15	Nos.
22	Cutting Mat for Gloves	Rubber Sheet, 3x3 ft.	15	Nos.
23	Cutting Pattern	various types and sizes as per products to be prepared	5	Nos.
24	Cutting Press	20 Ton , Max Cutting Force: 120 KN, Motor power: 0.75 Kw	1	No.
25	Cutting Table with Light	5.5x4x3 ft. along with the proper light	5	Nos.
26	Cylinder Arm Machine	Single Needle Unison Feed Cylinder Bed Sewing Machine	2	Nos.
27	Different inspiration sources (magazines, Catalogues)	Fashion Magazines, Product Catalogues	10	Nos.
28	Different types of walking foot	Universal walking foot, Patch Work foot, Roller foot	15	Set.
29	Digitizer	60x50 inch	1	No.
30	Drawing Board	25x15 inch	25	Nos.
31	Dummies	Men, Ladies Mannequin	4 Ladies, 4 Gents	Nos.
32	Electrical Cutter	Fabric Cutter 10 Inch Straight Knife	1	No.
33	Emergency Alarm System (Fire, Smoke)	Standard size fire and smoke sensors with alarm	4	Nos.
34	Eye Guard	Eye Guard for Protection of eyes	25	Nos.
35	Eyelet machine	Single Needle Lock Stitch Machine (heavy) with auto trimmer, Direct Drive (Computerized)	1	No.
36	Finger Shape Sticks	Wooden; various sizes	5	Set.
37	Fire Extinguishers	Different types of fire extinguisher used against all types of fire	3	Set.
38	First Aid Box	General Aid Box Kit	4	Nos.
39	Flat Bed Double Needle Lock Stitch Machine with complete accessories (Folder,	Double Needle Lock Stitch Machine (heavy) with auto trimmer, Direct Drive	5	Nos.

	Stitch Gauge)			
40	Flat Bed, Single Needle Lock Stitch Machine with complete accessories (Folder, Stitch Gauge)	Single Needle Lock Stitch Machine (heavy) with auto trimmer, Direct Drive	15	Nos.
41	Flat Lock Three Needle Machine	Flat Lock Machine 3 Needle 5 Thread Cylinder Interlock auto trimmer	1	No.
42	French Curve	5 sets of Sew French Curve Metric Shaped Ruler	25	Set.
43	Gauge Meter,	Measurement range 0-14mm	5	Nos.
44	Graphic Designing Software	Coral Draw, Adobe Illustrator	1	No.
45	Hammer	Standard size Iron hammer	15	Nos.
46	Hole Punches	To Single hole in card board sheet	10	Nos.
47	Instruction-design, technical file	Basic Technical File of a Garment with material and size specification,	1	No.
48	Internet	Internet Connection with Wi-Fi router	1	No.
49	Iron Base Heater	Base for heating the Iron	5	Nos.
50	iron Hand of Different Sizes	Different Shapes and sizes of Irons (For Thumb, Ladies, Gents)	5	Set.
51	Iron Press along with the Iron Stand	minimum 2000 Watts	3	Nos.
52	Knife Sharpener	Sharpener to sharpen the Blade that is fixed in the fabric Cutter	5	Nos.
53	Korean Scale	Type of Scale used in the Pattern Making Process	25	Nos.
54	Allen Key (L-key) Set	9 Pcs of Sets Size Details (T8s, T9s, T10s, T15s, T20s, T25s, T27s, T30s, T40s,)	5	Set.
55	Laser Cutting Machine	Cutting Area: 1300x900 mm, Laser Power: 110 Watt, Voltage: 220 V, Single Head	1	No.
56	Leather Cutting Knife	Small Knife for leather cutting	25	Nos.
57	Machine Oil	For lubrication of machines	30	Liter
58	Magnifying Glass	Basic Magnifying Glass for the inspection of leather	5	Nos.
59	Marble Slab	4 Inch Thick and 3ftx3ft	3	Nos.
60	Measurement Tape	Measuring Tape Length: 60 Inch	25	Nos.
61	Mobile Set	Mobile phone set able to run IOS/Android mobile Operating System, with camera	1	No.

62	Needle Detector	Needle Detection Area: 2.5(W)x5(D)cm, Magnetic Induction: High ϕ 0.8mm steel - Low ϕ 0.1mm steel at 5mm height from detecting surface	1	No.
63	Needle Light	LED Light to be attached on the machine for better lighting 0.9w, Frequency: 50/60HZ, Input: 220 V	35	Nos.
64	Needles of sewing Machines	Extra Needles for every sewing machine	40	Packs.
65	Notcher	To make different kinds of holes in the leather	5	Nos.
66	Number Machine	Stamping Machines No Of Fonts : 6 Dimensions : 6.4 X 4.3 X 14	3	Nos.
67	Oil Can	Small Oil can for the oiling of the machines	10	Nos.
68	One Hole Punch	Hole Punch to make single/ Double hole in Pattern Sheet	5	Nos.
69	Over Lock Machine	Over Lock Machine 4 Thread (Heavy) Direct Drive, with Cutter and Suction Device	3	Nos.
70	Packing information	Template of packing instructions and details	1	No.
71	Pant Curve Tool	Tool used in the Pattern Making of the products	25	Nos.
72	Pattern Hanger	Steel wire Hanger to hang the Pattern	50	Nos.
73	Pattern Shaper	Tool used in the Pattern Making of the products	25	Nos.
74	Pattern Stand	8x6x9ft adjustable height	4	Nos.
75	Pattern Table	8x4x3.5ft	5	Nos.
76	Photo Editing Software	Adobe Photo Shop	1	No.
77	Plastic Pipe to straighten the gloves	1 ft. PVC pipe 0.5 Inch diameter	10	Nos.
78	Post Bed Double Needle Lock Stitch Machine	Post Bed Machine Servo Moto Double Needle Lock Stitch Machine	3	Nos.
79	Post Bed Single Needle Lock Stitch Machine	Post Bed Machine Servo Moto Single Needle Lock Stitch Machine	3	Nos.
80	PPE (Apron, gloves, goggles, dust & chemical hazards masks, safety shoes, ear plugs, Cap	Safety kit	25	Set.
81	Pressing Hammer	Wooden Hammer	15	Nos.
82	Printer	Laser Jet Printer for Computer Class Use, Black n White	2	Nos.
83	Printing Plotter	Rotary Letter Press Structure, Ink Jet Printer, Size:	1	No.

		3000x500x1070mm, 600 Dpi, Type of motor: X Axis, Y Axis , Cartridge : HP45 (Minimum 75~305m2/H (2head))		
84	Product Design information-technical Sketch, Technical File	Template of Tech Pack	1	No.
85	Projector	1080p, 1.2x Zoom	2	Nos.
86	Projector Screen,	6x6 ft. screen	2	Nos.
87	Punch Machine	Machine used for making holes in the paper/sheet	5	Nos.
88	Quality Inspection Report	Template for Quality Inspection Report	1	No.
89	Ready Made Products	Any Complete Leather Product for performing Checking & Packing Task	25	Nos.
90	Ready Shape Pattern	Complete Pattern, Cut by Pattern Maker of card board or X-Ray Sheet	5	Nos.
91	Rubber Hammer	Hammer with Rubber Head, 16 oz.	10	Nos.
92	Samples of Leather Skin	Complete Hides of Leather, Cow, Sheep, Goat, Buffalo	10	Set.
93	Scanner	Maximum resolution of 2400 x 4800 (Optical) dpi1 for excellent scanning quality for both photos and documents.	2	Nos.
94	Scissors Pattern Cutting	Scissors 11 Inch	25	Nos.
95	Scissors	Scissors 10 Inch	25	Nos.
96	Screw Driver Set	#2 x 1-1/2 inch; #1 x 3 inch, #2 x 4 inch, #3 x 6 inch, #4 x 8 inch	5	Set.
97	Skiving Machine	Leather trimming width from 15mm up to 50mm in single stroke; Speed: 1000 -1200 RPM	1	No.
98	Software Package(MS Office),	MS word, MS Excel, MS Power Point	25 Numbers	Nos.
99	Spirit Lamp	Spirit Lamp with Burner	10 Pcs	Nos.
100	Spray Booth	Booth with Iron stand and Spray Gun along with the air compressor	01 Number	No.
101	Spray gun	Spray Gun with compressor	1	Set.
102	Steel Frame for Stretchable Panels	Steel Frame of 2x3 ft. with spikes to hold the leather panels	25	Nos.
103	Steel Scale (12 Inch, 24 inch & 36 Inch)	Steel Scale of 12 Inch, 24 Inch & 36 Inch Length	25	Set.
104	Stitch Gauge	Assessor to control the Gauge of the leather	25	Set.
105	Stopwatch	Standard type	25	Nos.

106	Swatches of Different Leathers	Nubuck, Suede, Anlyone, Burnish, Split, Glaze	5	Set.
107	Swatches of Synthetic Material	PU & PVC coated materials	5	Set.
108	Tag Gun with Pins	Tagging Gun to pack the product and hanging Hand tag	5	Nos.
109	Teflon Sheet for the Press Cutter	2 Inch Sheet as per the size of Cutting Press	2	Nos.
110	Teflon Sheet(Cutting Sheet) for Gloves	36"x36" half inch thickness	25	Nos.
111	Testing Station with Proper Light	Stainless Steel Stand, Table top size 3x6x4ft with LED Lights on top	1	No.
112	Thread Burner	Lighter or any other tool to burn the threads	25	Nos.
113	Tracing Table	Size: 2'x4x3'; Transparent glass on Top with LED Lights inside	2	Nos.
114	Tracing Wheel	Tracing wheel with wooden Handle and Spiked wheel on top	25	Nos.
115	Two Hole Punch	Two hole puncher to make holes in the pattern sheet	10	Nos.
116	Water & Sand Bucket	Iron Baskets with Red Paint	2	Set.
117	Weighing Scale	Small Weight Scale to calculate the GSM of the fabric	3	Nos.
118	Wooden Hammer	Standard sizes	15	Nos.
119	Wooden Scale	12 Inch Scale	25	Nos.
120	Zigzag Machine	1 Needle, Lockstitch Machine, Zigzag stitching Machine, with Large Hook	2	Nos.
	Specific items for Module-12		25	copies
121	Performance Appraisals		25	copies
122	Daily production / work plan		25	copies
123	Duty Rota		25	copies
124	Equipment for contacting security		25	copies
125	Job descriptions		25	copies
126	Log for recording absences		25	copies
127	Logbooks for recording accidents and incidents		25	copies
128	Noticeboard		25	copies
129	Organizational health and safety policy		25	copies
130	Organizational procedures for dealing with emergencies and problems, including		25	copies

	accidents, fire, evacuations			
131	Organizational procedures for dealing with problems		25	copies
132	Preventive maintenance program		25	copies
133	Record of allocated duties and tasks		25	copies
134	Schedule of production and delivery		25	copies
135	Standard Operating Procedures for different work area and operations		25	copies
136	Standard operating procedures for safe working		25	copies
137	Training records		25	copies
138	Uniforms (appropriate to the organisation)		25	No.
139	Work area log books		25	copies

List of consumable supplies

Sr. No.	Name of Consumable Supplies
1	Gloves
2	Apron
3	Goggles
4	Dust mask
5	Chemical hazard mask
6	Safety shoes
7	Ear plugs
8	Brushes
9	Phenyl powder
10	Report templates
11	Paper (A4)
12	Note pad
13	Record register
14	Pencils (3H, 2H, & 2.5 H.B.)
15	Note pad
16	Toner for printers
17	Led Pencils
18	Ball {Points
19	Leather assorted types
20	Marking Pen/Pencil/Chalk
21	Erasers
22	Blades for cutting knife
23	Machine Oil
24	Cleaning Cloth
25	WD 40

26	Thread
27	Needles
28	Adhesive
29	Stain remover solution
30	Double Tape
31	Fusing
32	Pins for Tag Guns
33	Poly Bags in assorted sizes
34	Wax for Leather
35	Paper Tape
36	Crayons
37	Lacquer
38	Ready Leather Products
39	Plastic Wire for Carton Strapping Machine
40	Bar Code Stickers
41	Markers
42	Butter Papers
43	Waste Material to give shape to complete product
44	packing tape
45	Sharpener
46	Clutch Pencil
47	Drafting paper
48	Dividers (Seam allowance pencil)
49	Sketch Books
50	Color Pencils
51	Poster Colors
52	Water Colors
53	Scholar Sheets
54	Pointer in different colors

55	Tracing Papers
56	Cartridge of CAD/CAM Printer
57	Fabric for lining
58	Buttons
59	Zips
60	Wheel for Buffing Machine
61	Pattern Sheets
62	Stitching Guiding Exercise
63	Clips to hold the leather
64	Reinforcement material
65	Hang Tags
66	Size Labels
67	Creams for Leather Finishing
68	Silica Gel
69	Dot Maker
70	Notcher for pattern making
71	Crepe Rubber
72	Liquid solution for cleaning

Credit values

The credit value of the National Certificate Level 4 in Leather Products Development Technician is defined by estimating the amount of time/ instruction hours required to complete each competency unit and competency standard. The NVQF uses a standard credit value of 1 credit = 10 hours of learning (Following Higher Education Commission (HEC) guidelines).

The credit values are as follows:

Competency Standard	Estimate of hours	Credit
1: Comply with Perform Personal Health and Safety Guidelines	30 Hours	03
2: Communicate the Workplace Policy and Procedure	20 Hours	02
3: Perform Basic Communication (Specific)	30 Hours	03
4: Perform Basic Computer Application (Specific)	40 Hours	04
5: Perform Cutting Operations	60 Hours	06
6: Prepare Small Parts of Leather Products	160 Hours	16
7: Stitch Leather Garments and Accessories	160 Hours	16
8: Stitch Leather Gloves	160 Hours	16
9: Perform Finishing	60 Hours	06

