# LEATHER PRODUCTS DEVELOPMENT TECHNICIAN

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## CBT CURRICULUM
National Vocational Certificate Level 3

Version 1 - April, 2019

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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 (NAVTTC) 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, design development, manual pattern making, CAD/CAM pattern making, 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:

- Apply Work Health and Safety Practices (WHS)
- Identify and Implement Workplace Policy and Procedures
- Communicate at Workplace
- Perform Computer Application Skills
- Manage Personal Finance
- Construct Pattern for Leather Products
- Develop Fashion Drawing and Design
- Design Leather Products using Drawing Software

**Possible available job opportunities available immediately and later in the future**

The job opportunities available are in the fields of Graphic designing, fashion designing, manual pattern making, computerized pattern making as well as in 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 experience. The 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 of work experience. The entry for assessment of this qualification is not specified. |
|---|---|

**Minimum qualification of trainer**

B.Sc. (Hons) in Fashion Designing/Textile Engineering and minimum 01 Years of Industrial experience in relevant filed 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:  590 Hours (Theory:  112 Hours & Practical:  478 Hours)

**Sequence of the modules**

This qualification is made up of 08 modules. In 1st Module trainee will learn basics f Apply Work Health and Safety Practices (WHS), in 2nd Module trainee will have know how of Identify and Implement Workplace Policy and Procedures. In 3rd module trainee will able to learn basic

communication skills to communicate effectively with in the workplace, basic techniques of reporting and communicating with the customers. 4th Module is on the training on Computer Skills and 5th is about Managing Finance. All these modules can run parallel to each other.

Module 6,7 and 8 are related to the development of the pattern and designing on the computer and manually

The distribution table is shown below

| National Vocational Certificate Level-3 in Leather Products Development Technician (Pattern Maker) Time allocationc:590 Hours | | | |
|---|---|---|---|
| Module 1: Apply Work Health and Safety Practices (WHS) | Module 2:Identify and Implement Workplace Policy and Procedures | Module 3: Communicate at Workplace | Module 4:Perform Computer Application Skills |
| Module 5:Manage Personal Finance | Module 6:  Develop Fashion Drawing and Design | Module 7: Construct Pattern for Leather Products | Module 8:  Design Leather Products using drawing software |

## Summary – overview of the curriculum

| Module Title and Aim | Learning Units | Theory Days/hours | Workplace Days/hours | Timeframe of modules |
|---|---|---|---|---|
| **Module 1:** Apply Work Health and Safety Practices (WHS) | **LU1.** Implement safe work practices at work place<br>**LU2.** Participate in hazard assessment activities a work place<br>**LU3.** Follow emergency procedures at workplace<br>**LU4.** Participate in OHS consultative processes | 6 | 24 | 30 |
| **Module 2:** Identify and Implement Workplace Policy and Procedures | **LU1.** Identify workplace policy & procedures<br>**LU2.** Implement workplace policy & procedures<br>**LU3.** Communicate workplace policy& procedures<br>**LU4.** Review the implementation of workplace policy & procedures | 4 | 16 | 20 |
| **Module 3:** Communicate at Workplace | **LU1.** Communicate within the organization<br>**LU2.** Communicate outside the organization<br>**LU3.** Communicate effectively in workgroup<br>**LU4.** Communicate in writing | 6 | 24 | 30 |
| **Module 4:** Perform Computer Application Skills | **LU1.** Prepare In-page documents as per required information<br>**LU2.** Prepare Spreadsheets as per required information<br>**LU3.** Use MS Office as per required information<br>**LU4.** Perform computer graphics in basic applications<br>**LU5.** Create Email account for communications | 8 | 32 | 40 |
| **Module 5:** Manage Personal Finances | **LU1.** Develop a personal budget<br>**LU2.** Develop long term personal budget<br>**LU3.** Identify ways to maximize future finances | 6 | 24 | 30 |

| Module Title and Aim | Learning Units | Theory Days/hours | Workplace Days/hours | Timeframe of modules |
|---|---|---|---|---|
| **Module 6:** Construct patterns for leather product<br><br>**Aim:** The aim of this module is to enable the students to perform complete pattern construction working steps, including pattern industrialization and pattern grading for different leather products. | **LU1:** Construct base pattern<br>**LU2:** Construct design pattern<br>**LU3:** Construct cutting pattern<br>**LU4:** Construct lining pattern<br>**LU5:** Construct fusing pattern<br>**LU6:** Perform pattern grading | 44 Hours | 176 Hours | 220 Hours |
| **Module 7:** Develop fashion drawing and design<br><br>**Aim:** The aim of this module is to qualify the student in silhouette drawing and in fashion designing. | **LU1:** Draw figure template<br>**LU2:** Draw different poses of figure template<br>**LU3:** Draw various parts of figure template<br>**LU4:** Perform rendering of figure template<br>**LU5:** Adjust rendered leather product on figure | 14 Hours | 86 Hours | 100 Hours |

| Module Title and Aim | Learning Units | Theory Days/hours | Workplace Days/hours | Timeframe of modules |
|---|---|---|---|---|
| **Module 8:** Design leather products using drawing software<br><br>**Aim:** The aim of this module is to enable the student to perform fashion design for leather products by using photo editing and graphic designing software. | **LU1:** Design leather product using photo editing software<br>**LU2:** Design leather products using Graphic designing software | 24 Hours | 96 Hours | 120 Hours |

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Module-1

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# Modules

## Module 1:  Apply Work Health and Safety Practices (WHS)

**Objective:**     This unit describes the skills to work with safety and participate in hazard assessment activities, follow emergency procedures and participate OHS practices in process.

**Duration:  30 Hours**                    **Theory: 06 Hours**                    **Practice: 24 Hours**

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| **LU1.    Imple ment safe work practices at work place** | **The trainee is able to:**<br><br>• Implement relevant rules and procedures of WHS at work place.<br><br>• Comply with duty of care requirements<br><br>• Use personal protective equipment according to safe work practices<br><br>• Contribute to WHS consultative activities | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | • Raise WHS issues with relevant personnel | | | | |
| **LU2.    Partici pate in hazard assessment activities a work place** | **The trainee is able to:**<br><br>• Identify hazards or WHS issues in the workplace to relevant personnel<br><br>• Assess and control risks according to own level of responsibility, in line with workplace procedures<br><br>• Report hazards or WHS issues in the workplace to relevant personnel<br><br>• Document risk control actions as required | | | | |
| **LU3.    Follow emergency procedures at** | **The trainee is able to:**<br><br>• Report emergencies or | | | | |

| workplace | incidents promptly to relevant personnel |  |  |  |  |
|  | • Deal with emergencies in line with own level of responsibility |  |  |  |  |
|  | • Implement evacuation procedures as required |  |  |  |  |
| LU4.    Participate in OHS consultative processes | **The trainee is able to:** |  |  |  |  |
|  | • Contribute to workplace meetings, inspections or other consultative activities |  |  |  |  |
|  | • Raise OHS (Occupational Health and Safety) issues with designated persons in accordance with organizational procedures |  |  |  |  |
|  | • Take actions to eliminate workplace hazards or to reduce |  |  |  |  |
|  | risks |  |  |  |  |

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Module-2

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**Module 2: Identify and Implement Workplace Policy and Procedures**

**Objective:**     This unit describes the skills and knowledge required to develop and implement a workplace policy & procedures and to modify the policy to suit changed circumstances. It applies to individuals with managerial responsibilities who undertake work developing approaches to create, monitor and improve strategies and policies within workplaces and engage with a range of relevant stakeholders and specialists.

**Duration:   20 Hours**                          **Theory: 04 Hours**                          **Practice: 16 Hours**

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| **LU1.      Identify workplace policy & procedures** | **The trainee is able to:**<br>• Identify the workplace policy & procedures<br>• Apply appropriate strategies that can be used to measure whether your workplace health and safety obligations are being met.<br>• Assure the policies are realistic, resources and personnel to implement<br>• Implement the policy & procedures that reflects the | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | organizations commitments<br><br>• Ensure the appropriate methods of implementation, outcomes and performance indicators | | | | |
| **LU2.    Implement workplace policy & procedures** | **The trainee is able to:**<br><br>• Apply and assign responsibility for recording systems to track continuous improvements in policy & procedures<br>• Implement strategies for continuous improvement in effective and efficient information | | | | |
| **LU3.    Communicate workplace  policy& procedures** | **The trainee is able to:**<br><br>• Communicate procedures to help implement workplace policy<br>• Inform those involved in implementing the policy about expected outcomes, activities to be undertaken and assigned | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | responsibilities | | | | |
| **LU4.  Review the implementation of workplace policy & procedures** | **The trainee is able to:**<br><br>• Identify the trends that may require remedial actions<br><br>• Record the trends that may require remedial actions.<br><br>• Ensure policy and procedures as required are made for continuous improvement of performance | | | | |

## Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

**K1:** Legislation, regulations and codes of practice applicable to the organization

**K2:** internal and external sources of information and organizational policy & procedures

**K3:** Typical barriers to implementing policies and procedures in an organization.

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Module-3

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## Module 3: Communicate at Workplace

**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: 30 Hours**          **Theory: 06 Hours**          **Practice: 24 Hours**

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| **LU1. Communicate within the organization** | **The trainee is able to:**<br>• Communicate within a department<br>• Communicate with other departments.<br>• Use various media to communicate effectively<br>• Communicate orally and written | | | | |
| **LU2. Communicate outside the organization** | **The trainee is able to:**<br>• Deal with vendors<br>• Deal with clients/customers<br>• Interact with other organisations<br>• Use various media to | | | | |

| | communicate effectively | | | | |
|---|---|---|---|---|---|
| | • Work with people of different cultures / backgrounds | | | | |
| **LU3. Communicate effectively in workgroup** | **The trainee is able to:**<br><br>• Assess the issues to provide relevant suggestion to group members<br><br>• Resolve the issues/ problems /conflicts within the group<br><br>• Arrange group working sessions to increase the level of participation in the group processes<br><br>• Communicate messages to group members clearly to ensure interpretation is valid<br><br>• Communicate style /manner to reflect professional standards/ awareness of appropriate cultural practices<br><br>• Act upon constructive feedback | | | | |

| LU4. Communicate in writing | The trainee is able to: | | | | |
|---|---|---|---|---|---|
| | • Identify relevant procedures for written information | | | | |
| | • Use strategies to ensure correct communication in writing .i.e. | | | | |
| | • correct composition | | | | |
| | • clarity | | | | |
| | • comprehensiveness | | | | |
| | • accuracy | | | | |
| | • appropriateness | | | | |
| | • Draft assigned written information for approval, ensuring it is written within designated timeframes | | | | |
| | • Ensure written information meets required standards of style, format and detail | | | | |
| | • Seek assistance / feedback to aid communication skills development | | | | |

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Module-4

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## Module 4: Perform Computer Application Skills

**Objective:** This unit describes the skills and knowledge required to use spreadsheet applications, prepare in page documents, 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.** Prepare In-page documents as per required information | **The trainee is able to:** <br><br>• Set keyboard preferences according to information requirements <br><br>• Layout Page according to information requirements <br><br>• Toggle between Languages | • Knowledge of tool and equipment being used in the Pattern making <br>• Understanding of measuring units e.g. mm, cm, inches etc. <br>• Knowledge to understand technical sheet (tech pack) <br>• Understanding of sizing systems used in leather sector e.g. European, UK, USA <br>• Knowledge to draw different lines, curves, angles and shapes <br>• Knowledge of dart, points and notches <br>• Basic knowledge of human body proportions e.g. head line, shoulder line, chest line, waist line, hip line, thigh line, calf line, bottom line | **Total** <br><br>70 Hours <br><br>**Theory:** <br><br>14 Hours <br><br>**Practical:** <br><br>56 Hours | Pattern Table <br><br>Cutting Mat, Pattern shapers <br><br>Measuring tape <br><br>measuring scales <br><br>Curve set (French Curve, Pant curve ) Set square, Flexible Curve, <br><br>Scissors <br><br>Knife <br><br>Hole Punch, Hanger, | **Theory** <br><br>Classroom <br><br><br>**Practical** <br><br> Workshop |

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| | • Identify the usage of tool bar<br>• Insert Columns as per requirement<br>• Print the document<br>• | • Knowledge of dart transfer according to the product<br>• Understanding the sequence of lines and shapes<br>• Knowledge of cutting technique and use of different cutting tools e.g. cutting with Scissors, and hand paper knife | | Pattern Stand<br><br>Tape Dispenser, Korean Scale<br><br>Tracing wheel, Punch machine Notches, Dummies, | |
| **LU2.**<br>Prepare Spreadsheets as per required information | **The trainee is able to:**<br>• Create workbook according to information requirements<br>• Insert sheet according to information requirements<br>• Enter basic formulae / functions using | • Knowledge of tracing patterns<br>• Understanding of design importance<br>• Understanding of dart manipulation<br>• Knowledge of label and accessories placement in design pattern<br>• Understanding of placement techniques according to the actual design | **Total**<br>40 Hours<br>**Theory:**<br>08 Hours<br>**Practical:**<br>32 Hours | Table, chair<br><br>Cutting Mat, Pattern shapers<br><br>Measuring tape<br><br>Different measuring scales<br><br>Curve set (French Curve, Pant curve) Set square, Flexible Curve<br><br>Scissors<br><br>Knife, Pattern table | **Theory**<br>Classroom<br><br>**Practical**<br>Workshop |

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| | cell referencing when required | | | Hole Punch, Hanger, Pattern Stand | |
| | • Correct formulas when error messages occur | | | Tape Dispenser, Korean Scale | |
| | • Use a range of common tools during spreadsheet development | | | Tracing wheel, Punch machine Notches, Dummies, | |
| | • Edit columns and rows within the spreadsheet Filter data | | | | |
| | • Save the spreadsheet to a folder on a storage device | | | | |
| | • Format spreadsheet using formatting | | | | |

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| | features as required<br>• Incorporate object and chart in spreadsheet<br>Print spreadsheet | | | | |
| Use MS Office as per required information | **The trainee is able to:**<br>• *Use Microsoft Word for documentation*<br>• *Use Microsoft Excel for documentation*<br>• *Use Microsoft PowerPoint for presentation*<br>• *Perform OneNote*<br>• *Perform Outlook for emails* | • Understanding of different seams according to the design e.g. overlock seam, safety overlock seam, lock stitch seam, piped seam etc.<br>• Understanding of seam allowances according to the design e.g. overlock seam, safety overlock seam, lock stitch seam, piped seam<br>• Knowledge about the direction of panels of the pattern<br>• Understanding of product/article name, size, cutting quantity and panel name | **Total**<br>30 Hours<br>**Theory:**<br>06 Hours<br>**Practical:**<br>24 Hours | Pattern table<br>Cutting Mat, Pattern shapers<br>Measuring tape<br>measuring scales<br>Curve set (French Curve, Pant curve )<br>Set square, Flexible Curve,<br>Scissors<br>Knife,<br>Hole Punch, Hanger, Pattern Stand | **Theory**<br>Classroom<br>**Practical**<br>Workshop |

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| | *Perform Publisher applications* | | | Tape Dispenser, Korean Scale<br><br>Tracing wheel, Punch machine Notches, Dummies, | |
| Perform computer graphics in basic applications | **The trainee is able to:**<br><br>• Perform graphic fundamentals in basic applications<br><br>• Draw Points and lines to make images<br><br>• Draw Dots in space to make images<br><br>• Draw lightening blot Shapes to make images<br><br>• Enlarge circles | • Knowledge about purpose of lining and lining materials<br>• Understanding the difference between base and lining pattern<br>• Understanding of seam allowance in lining according to the material<br>• Knowledge of label and accessories placement in lining pattern<br>• Knowledge about the direction of panels of the pattern in lining | **Total**<br>30 Hours<br>**Theory:**<br>06 Hours<br>**Practical:**<br>24 Hours | Pattern Table<br><br>Cutting Mat, Pattern shapers<br><br>Measuring tape<br><br>Different measuring scales<br><br>Curve set (French Curve, Pant curve )<br>Set square, Flexible Curve,<br><br>Scissors<br><br>Knife<br><br>Hole Punch, Hanger, Pattern Stand<br><br>Tape Dispenser, | **Theory**<br>Classroom<br><br><br>**Practical**<br>Workshop |

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| | and rectangles to block in forms • | | | Korean Scale  Tracing wheel, Punch machine Notches, Dummies, | |
| **LU3.** Create Email account for communications | **The trainee is able to:** • Make email account for communications • . Compose text of an email message according to organizational guidelines as required • Create an automatic signature for the user • Attach files to | • Knowledge of interface material (fusing) and its types • Knowledge of application and benefits of interface material (fusing) according to the product • Understanding of fusing patterns e.g. under collar, under cuff, Flap, bone pocket etc. • Knowledge about the direction of panels of the pattern in fusing | **Total** 15 Hours  **Theory:** 03 Hours **Practical:** 12 Hours | Pattern Table  Cutting Mat, Pattern shapers  Measuring tape  measuring scales  Curve set (French Curve, Pant curve ) Set square, Flexible Curve,  Scissors  Knife  Hole Punch, Hanger, Pattern Stand  Tape Dispenser, Korean Scale  Tracing wheel, | **Theory** Classroom  **Practical** Workshop |

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| | email message where required <br><br> • Send email message <br><br> • Reply to / forward a received message using available features <br><br> • Save an attachment to the relevant folder <br><br> • Save email message using available settings <br><br> • Adjust email accounts to restrict and | | | Punch machine Notches, Dummies, | |

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| | quarantine possible email security problems<br>• Print email message as per requirements | | | | |

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Module-5

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**Module 5: Manage Personal Finances**

**Objective:** This unit of competency describes the outcomes required to manage develop, implement and monitor a personal budget in order to plan regular savings and manage debt effectively.

**Duration:  30 Hours**                **Theory: 06 Hours**                **Practice: 24 Hours**

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| **LU1.  Develop a personal budget** | **The trainee is able to:** <br><br> • Calculate current living expenses using available information to prepare a personal budget. <br><br> • Keep a record of all income and expenses for a short period of time to help estimate ongoing expenses. <br><br> • Subtract total expenses from total income to determine a | | | | |

| | | | | |
|---|---|---|---|---|
| | surplus or deficit budget for the specified period.<br>• Find reasons for a deficit budget and ways to reduce expenditure identified.<br>• Identify ways to increase income | | | | |
| **LU2. Develop long term personal budget** | **The trainee is able to:**<br>• Analyze income and expenditure and set long term personal financial goals.<br>• Develop a long-term budget based on the outcomes of short-term budgeting.<br>• Identify obstacles that might affect the business<br>• Formulate a regular savings plan based on | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | budget | | | | |
| **LU3. Identify ways to maximize future finances** | **The trainee is able to:**<br><br>• Determine sources to maximize personal income,<br><br>• Get further education or training to maintain or improve future income.<br><br>• Identify the need for debt to finance living and other expenses,<br><br>• Determine the appropriate levels of debt and repayment.<br><br>• Consolidate existing debt, where possible, to minimize interest costs and fees.<br><br>• Seek professional money management services. | | | | |

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Module-6

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## Module 6:  Construct Pattern for Leather Products

**Objective of the module:**  The aim of this module is to enable the students to perform complete pattern construction working steps, including pattern industrialization and pattern grading for different leather products.

**Duration:**    220 Hours     **Theory:**    44 Hours     **Practical:**    176 Hours

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| **LU1:** Construct Base pattern | **The trainee will be able to:**<br><br>• Prepare the workstation for work operation (put up the requested items and documents)<br>• Perceive the product information (sketch, measurement chart)<br>• Draft block for various patterns considering required measurements on pattern sheet<br>• Mark all the necessary points on the block as per product requirement covering all required clearances<br>• Draft the required shape | • Knowledge of tool and equipment being used in the Pattern making<br>• Understanding of measuring units e.g. mm, cm, inches etc.<br>• Knowledge to understand technical sheet (tech pack)<br>• Understanding of sizing systems used in leather sector e.g. European, UK, USA<br>• Knowledge to draw different lines, curves, angles and shapes<br>• Knowledge of dart, points and  notches<br>• Basic knowledge of human body proportions e.g. head line, shoulder line,  chest line, waist line, hip line, thigh line, calf line, bottom line<br>• Knowledge of  dart  transfer  according  to  the product<br>• Understanding the  sequence of lines and shapes<br>• Knowledge of cutting technique and use of different cutting tools e.g. cutting with Scissors, | **Total**<br><br>70 Hours<br><br>**Theory:**<br><br>14 Hours<br><br>**Practical:**<br><br>56 Hours | Pattern Table<br><br>Cutting Mat, Pattern shapers<br><br>Measuring tape<br><br>measuring scales<br><br>Curve set (French Curve, Pant curve )<br>Set square, Flexible Curve,<br><br>Scissors<br><br>Knife<br><br>Hole Punch, Hanger, Pattern Stand<br><br>Tape Dispenser, Korean Scale | **Theory**<br><br>Classroom<br><br><br>**Practical**<br><br> Workshop |

| | | | Total | Tracing wheel, Punch machine Notches, Dummies, | |
|---|---|---|---|---|---|
| | of the product for base pattern<br>• Draw dart points and dart according to product fitting requirement<br>• Control the drawn pattern according to the measurement chart and control the matching of the pattern pieces<br>• Cut the drafted base pattern | and hand paper knife | | | |
| **LU2:** Construct Design pattern | **The trainee will be able to:**<br><br>• Trace the base pattern on the pattern sheet<br>• Add the design according to product requirement on the base pattern (modify the block pattern according to the design)<br>• Control the drawn design pattern according to the design and control the matching of the pattern pieces<br>• Cut the design pattern | • Knowledge of tracing patterns<br>• Understanding of design importance<br>• Understanding of dart manipulation<br>• Knowledge of label and accessories placement in design pattern<br>• Understanding of placement techniques according to the actual design | **Total**<br><br>40 Hours<br><br>**Theory:**<br><br>08 Hours<br><br>**Practical:**<br><br>32 Hours | Table, chair<br><br>Cutting Mat, Pattern shapers<br><br>Measuring tape<br><br>Different measuring scales<br><br>Curve set (French Curve, Pant curve) Set square, Flexible Curve<br><br>Scissors<br><br>Knife, Pattern table<br><br>Hole Punch, Hanger, | **Theory**<br><br>Classroom<br><br><br>**Practical**<br><br>Workshop |

| | | | Pattern Stand<br><br>Tape Dispenser,<br>Korean Scale<br><br>Tracing wheel, Punch machine Notches, Dummies, | |
|---|---|---|---|---|---|
| **LU3:** Construct Cutting Pattern | **The trainee will be able to:**<br><br>• Trace the design pattern on pattern sheet<br>• Create the cutting pattern by adding seam allowances to the design pattern<br>• Add grain line, notches and marks for sewing process<br>• Add nomenclature to identify the cutting pattern pieces<br>• Cut the cutting pattern | • Understanding of different seams according to the design e.g. overlock seam, safety overlock seam, lock stitch seam, piped seam etc.<br>• Understanding of seam allowances according to the design e.g. overlock seam, safety overlock seam, lock stitch seam, piped seam<br>• Knowledge about the direction of panels of the pattern<br>• Understanding of product/article name, size, cutting quantity and panel name | **Total**<br><br>30 Hours<br><br>**Theory:**<br><br>06 Hours<br><br>**Practical:**<br><br>24 Hours | Pattern table<br><br>Cutting Mat, Pattern shapers<br><br>Measuring tape<br><br> measuring scales<br><br>Curve set (French Curve, Pant curve )<br>Set square, Flexible Curve,<br><br>Scissors<br><br>Knife,<br><br>Hole Punch, Hanger, Pattern Stand<br><br>Tape Dispenser, Korean Scale | **Theory**<br><br>Classroom<br><br><br>**Practical**<br><br> Workshop |

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|---|---|---|---|---|
| | | | | Tracing wheel, Punch machine Notches, Dummies, | |
| **LU4:** Construct Lining Pattern | **The trainee will be able to:**<br><br>• Trace the base pattern on pattern sheet<br>• Create the lining pattern by adding seam allowances and designs to the base pattern<br>• Control the drawn pattern according to the measurement chart and control the matching of the pattern pieces<br>• Add grain line, notches and marks for sewing process<br>• Add nomenclature to identify the cutting pattern pieces<br>• Cut the lining pattern | • Knowledge about purpose of lining and lining materials<br>• Understanding the difference between base and lining pattern<br>• Understanding of seam allowance in lining according to the material<br>• Knowledge of label and accessories placement in lining pattern<br>• Knowledge about the direction of panels of the pattern in lining | **Total**<br><br>30 Hours<br><br>**Theory:**<br><br>06 Hours<br><br>**Practical:**<br><br>24 Hours | Pattern Table<br><br>Cutting Mat, Pattern shapers<br><br>Measuring tape<br><br>Different measuring scales<br><br>Curve set (French Curve, Pant curve )<br>Set square, Flexible Curve,<br><br>Scissors<br><br>Knife<br><br>Hole Punch, Hanger, Pattern Stand<br><br>Tape Dispenser, Korean Scale<br><br>Tracing wheel, Punch machine Notches, Dummies, | **Theory**<br><br>Classroom<br><br><br>**Practical**<br><br>Workshop |

| **LU5:** Construct Fusing pattern | **The trainee will able to:**<br>• Trace the cutting pattern on pattern sheet<br>• Draw the fusing pattern according to product requirement<br>• Control the drawn pattern according to the measurement chart and control the matching of the pattern pieces<br>• Cut the fusing pattern | • Knowledge of interface material (fusing) and its types<br>• Knowledge of application and benefits of interface material (fusing) according to the product<br>• Understanding of fusing patterns e.g. under collar, under cuff, Flap, bone pocket etc.<br>• Knowledge about the direction of panels of the pattern in fusing | **Total**<br>15 Hours<br><br>**Theory:**<br>03 Hours<br>**Practical:**<br>12 Hours | Pattern Table<br><br>Cutting Mat, Pattern shapers<br><br>Measuring tape<br><br>measuring scales<br><br>Curve set (French Curve, Pant curve )<br>Set square, Flexible Curve,<br><br>Scissors<br><br>Knife<br><br>Hole Punch, Hanger, Pattern Stand<br><br>Tape Dispenser, Korean Scale<br><br>Tracing wheel, Punch machine Notches, Dummies, | **Theory**<br>Classroom<br><br><br>**Practical**<br>Workshop |
| **LU6:** Perform pattern grading | **The trainee will be able to:**<br>• Trace base or design pattern on pattern sheet<br>• Mark grading points as | • Basic knowledge of Grading types e.g. Machine Grading, Manual Grading & Computerized Grading<br>• Knowledge of grading techniques e.g. standard grading, restriction grading, Coordinated grading | **Total**<br>35 Hours<br>**Theory:** | Pattern Table, chair<br><br>Cutting Mat, Pattern shapers<br><br>Measuring tape | **Theory**<br>Classroom |

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| | per measurement of required pattern <br>• Trace the pattern as per grading points <br>• Control the graded pattern according to the measurement chart and control the matching of the pattern pieces <br>• Add nomenclature to identify the cutting pattern pieces <br>• Cut the graded pattern | (break size grading), <br>• Knowledge of sizing system for grading e.g. UK, European and USA <br>• Knowledge of housekeeping of pattern e.g. proper marking, binding, labeling, hanging etc. | 07 Hours <br><br>**Practical:** <br><br>28 Hours | measuring scales <br><br>Curve set (French Curve, Pant curve ) Set square, Flexible Curve, <br><br>Scissors <br><br>Knife <br><br>Hole Punch, Hanger, Pattern Stand <br><br>Tape Dispenser, Korean Scale <br><br>Tracing wheel, Punch machine Notches, Dummies, | **Practical** <br><br>Workshop |

# LEATHER PRODUCTS DEVELOPMENT TECHNICIAN

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Module-7

## CBT CURRICULUM

National Vocational Certificate Level 3

Version 1 - April, 2019

## Module 7: Develop fashion drawing and design

**Objective of the module:** The aim of this module is to qualify the student in silhouette drawing and in fashion designing.

**Duration:** 100 Hours    **Theory:** 14 Hours    **Practical:** 86 Hours

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| **LU1:** Draw Figure Template | **The trainee will be able to:**<br><br>• Draw a fashion figure through measurement using appropriate method (eight, nine and ten head)<br>• Draw fashion figure through applicable geometrical shapes | • Knowledge of measuring system (mm, cm, inches etc.)<br>• Understanding of required human anatomy (head, arms, foot etc.)<br>• knowledge of different standard sizes (children, men, women)<br>• understanding of segregation of fashion figure according to shapes and sizes<br>• Knowledge to understand the difference between Drawing & Design<br>• Learning of different fashion figures (eight, nine, ten heads) from geometric shapes (triangle, square, circle)<br>• Understanding of fashion figure sketching through geometrical shapes | **Total:**<br>20 Hours<br><br>**Theory:**<br>02 Hours<br><br>**Practical:**<br>18 Hours | Drawing pencils<br><br>Rubbers<br><br>Pencil sharpeners<br><br>Drawing boards<br><br>Sketch book<br><br>Measuring tape<br><br>Scales | **Theory**<br>Classroom<br><br><br>**Practical**<br>Workshop<br>Drawing Lab |
| **LU2:** Draw different Poses of Figure Template | **The trainee will be able to:**<br><br>• Draw front pose<br>• Draw Side pose<br>• Draw Back pose | • Knowledge of figure movements and postures (front, side, back, quarter poses)<br>• Understanding of angles (90, 45, 180 degrees)<br>• Knowledge of perspective (shoulder, arms, legs | **Total:**<br>20Hours<br>**Theory:** | Set squares<br><br>Drawing pencils<br><br>Rubbers | **Theory**<br>Classroom |

| | | | | | |
|---|---|---|---|---|---|
| | • Draw Quarter pose | movements)<br><br>• Understating of different fashion poses sketching (front, side, back, quarter) | 02 Hours<br><br>**Practical:**<br><br>18 Hours | Pencil sharpeners<br><br>Drawing boards<br><br>Sketch book<br><br>Scales | **Practical**<br><br>Workshop<br><br>Drawing Lab |
| **LU3:** Draw various parts of Figure Template | **The trainee will be able to:**<br><br>• Draw Facial features<br>• Draw Hand movements<br>• Draw Arms<br>• Draw Foot movements | • Understanding of different figure parts (face, hand, arm, foot etc.)<br>• Understanding of drawing the facial features (eyes, nose, lips, ears etc.)<br>• Understanding the parts of hand (fingers, thumb, wrist)<br>• Understanding the drawing of hand movements (front, back, side)<br>• Understanding of the arm drawing (shoulder, bicep, elbow etc.)<br>• Understanding the parts of foot (toe, ankle, heel)<br>• Understanding the drawing of foot movements (front, back, side) | **Total:**<br><br>20 Hours<br><br><br>**Theory:**<br><br>02 Hours<br><br><br><br>**Practical:**<br><br>18 Hours | Drawing pencils<br><br>Pencil sharpeners<br><br>Drawing boards<br><br>Sketch book<br><br>Set squares | **Theory**<br><br>Classroom<br><br><br>**Practical**<br><br>Workshop<br><br>Drawing Lab |
| **LU4:** Perform Rendering of Figure Templates | **The trainee will be able to:**<br><br>• Perform Monotone Skin Rendering<br>• Perform Two Tone Skin Rendering<br>• Make different Silhouettes as per design requirement | • Understanding of rendering mediums (pencil colors, posters etc.)<br>• Understanding the direction of light sources (indoor, outdoor) on the figure<br>• Understanding of skin tone rendering (dark, medium, light)<br>• Understanding the rendering of skin in single and two colors (brown, peach) | **Total:**<br><br>30 Hours<br><br><br>**Theory:**<br><br>06 Hours | Drawing pencils<br><br>Rubbers<br><br>Pencil sharpeners<br><br>Drawing boards<br><br>Color pencils<br><br>Poster colors | **Theory**<br><br>Classroom<br><br><br>**Practical**<br><br>Workshop<br><br>Drawing Lab |

| | | • Understanding of technical drawing of garments as per design (shirt, trousers, skirts etc.) | **Practical:** 24 Hours | Water colors Pointers Scholar sheets Paint brushes | |
|---|---|---|---|---|---|
| **LU5:** Adjust Rendered leather product on Figure | **The trainee will be able to**: • Draw variations of garment components (Sleeves, collar, neckline, cuff, trouser, skirts, etc.) as per design requirement • Draw Figure Template with leather product • Render figure template with leather garment as per design requirement | • Knowledge about the primary, secondary, tertiary color scheme • Understanding of garment components (Sleeves, collar, neckline, cuff, trouser, skirts, etc.) • Understanding the drawing and rendering of leather product (jacket, trousers, skirt, gloves etc.) on figure template according to the required design | **Total:** 10 Hours **Theory:** 02 Hours **Practical:** 08 Hours | Drawing pencils Rubbers Pencil sharpeners Drawing boards Sketch book Scholar sheets Paint brushes Color pencils Poster colors Water colors Pointers Set squares | **Theory** Classroom **Practical** Workshop Drawing Lab |

# LEATHER PRODUCTS DEVELOPMENT TECHNICIAN



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Module-8

## CBT CURRICULUM

National Vocational Certificate Level 3

Version 1 - April, 2019

**Module 8: Design Leather Products using drawing software**

**Objective of the module:** The aim of this module is to enable the student to perform fashion design for leather products by using photo editing and graphic designing software.

**Duration:** 120 Hours   **Theory:** 24 Hours   **Practical:** 96 Hours

| Learning Unit | Learning Outcomes | Learning Elements | Duration | Materials Required | Learning Place |
|---|---|---|---|---|---|
| **LU1:** Design Leather products using Photo editing software | **The trainee will be able to:**<br><br>• Develop research board<br>• Develop mood board<br>• Trace leather product according to the product image<br>• Render the sketch according to research board<br>• Develop layout for technical drawing of leather product<br>• Create technical drawings of leather product<br>• Save and print the drawing file | • Understanding of photo editing software applications<br>• Knowledge to install and troubleshoot photo editing software<br>• Knowledge of measuring system (mm, cm, inches etc.)<br>• Knowledge of a page setup<br>• Knowledge to create layers for design development<br>• Knowledge and usage of photo editing software (Menu, tools, Color bar effects etc.)<br>• Knowledge to use scanner to scan the product<br>• Knowledge to import file in software to require file format<br>• Knowledge to Export file from software in required file format<br>• Knowledge to collect data through internet, newspaper, magazines etc. to make research board | **Total:**<br><br>60 Hours<br><br><br>**Theory:**<br><br>16 Hours<br><br><br>**Practical:**<br><br>44 Hours | Computer<br><br>Photo editing Software<br><br>Paper rim<br><br>Printer<br><br>Scanner<br><br>Internet connection<br><br>Projector | **Theory**<br><br>Classroom<br><br>**Practical**<br><br>Computer Lab |

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|---|---|---|---|---|---|
| | | • Knowledge to gather data from research board to make the mood board<br>• Knowledge and purpose (colors, design line, elements etc.) of research and mood boards according to theme (fashion leather jackets, motor bike jackets, leather coat, purse, etc.)<br>• Knowledge about Tracing the leather product using required tools (pen tool, clone tool etc.) according to the image in software<br>• Understanding the rendering using required tools (paint bucket, burn tool, dodge tool etc.) of the sketch in software<br>• Basic knowledge of threads, Fabric, leather and other accessories<br>• Basic knowledge of seams to make the technical drawing e.g. inseam, double top seam, lapped seam etc.<br>• Understanding the technical drawing and layout of the leather product<br>• Knowledge of different saving formats (JPEG, pdf, dxf, etc.) and separation of drawing before printing the drawing file | | | |
| **LU2:** Design Leather products using Graphic designing software | **The trainee will be able to:**<br>• Create the basic block of leather product<br>• Give basic block a shape of the leather product | • Understanding of Graphic designing software and its applications<br>• Knowledge to install and troubleshoot Graphic designing software<br>• Knowledge and usage of Graphic Designing Software (Menu, tools, Color bar effects etc.) | **Total:**<br><br>60 Hours<br><br><br>**Theory:** | Computer<br><br>Internet<br><br>Graphic designing Software | **Theory**<br><br>Classroom<br><br>**Practical**<br><br>Computer Lab |

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| | • Draw the required designs for accessories/embroidery/screen printing/sublimation on the leather product<br>• Render the leather product according to the design requirement<br>• Develop layout for technical drawing of leather product<br>• Create technical drawings of leather product<br>• Save and print the drawing file | • Knowledge of creating digital design of leather product using graphic design software<br>• Understanding the different rendering tools (paint bucket, burn tool, dodge tool etc.) in graphic design software of the sketch<br>• Knowledge of creating the basic block of leather product (bodice, trouser, jackets, purse, belt etc.) using required tools in graphic designing software<br>• Understanding the various shapes of leather products through basic block (bodice, trouser, jacket, purse, hand bag belt etc.)<br>• Understanding the importance of measurements, margins and placements before making the designs for screen printing/sublimation/embroidery etc.<br>• Understanding and drawing of surface designing techniques for (embroidery/screen printing/sublimation etc.) on leather product<br>• Knowledge of colour schemes and pantone book<br>• Understanding the rendering and its applications (paint bucket, burn tool, dodge tool etc.) in graphic design software of the sketch<br>• Understanding the technical drawing and layout of the leather product using graphic design software | 08 Hours<br><br>**Practical:**<br>52 Hours | Paper Rim<br><br>Butter Paper/Tracing Paper<br><br>Printer<br><br>Scanner<br><br>Projector | |
| | | • Understanding of saving the file in different formats (JPEG, pdf, dxf etc.) and separation of drawing before printing the drawing file | | | |

# 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 08 modules:

Module 1:  Apply Work Health and Safety Practices (WHS)
Module 2:  Identify and Implement Workplace Policy and Procedures
Module 3:  Communicate at Workplace
Module 4:  Perform Computer Application Skills
Module 5:  Manage Personal Finance
Module 6:  Construct Pattern for Leather Products

Module 7: Develop Fashion Drawing and Design

Module 8: Design Leather Products using Drawing Software

**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 3 in Leather Products Development Technician (Pattern Maker)

- Module 1: Apply Work Health and Safety Practices (WHS)

- Module 2: Identify and Implement Workplace Policy and Procedures

- Module 3: Communicate at Workplace

- Module 4: Perform Computer Application Skills

- Module 5: Manage Personal Finance

- Module 6: Construct Pattern for Leather Products

- Module 7: Develop Fashion Drawing and Design

- Module 8: Design Leather Products using Drawing Software

**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 φ0.8mm steel - Low φ0.1mm 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, Analyone, 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 |

## 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:  Apply Work Health and Safety Practices (WHS) | 30 Hours | 03 |
| 2:  Identify and Implement Workplace Policy and Procedures | 20 Hours | 02 |
| 3:  Communicate at Workplace | 30 Hours | 03 |
| 4:  Perform Computer Application Skills | 40 Hours | 04 |
| 5:Manage Personal Finance | 30 | 03 |
| 6:  Construct Pattern for Leather Products | 220 Hours | 22 |
| 7:  Develop Fashion Drawing and Design | 100 Hours | 10 |
| 8:  Design Leather Products using Drawing Software | 120Hours | 12 |