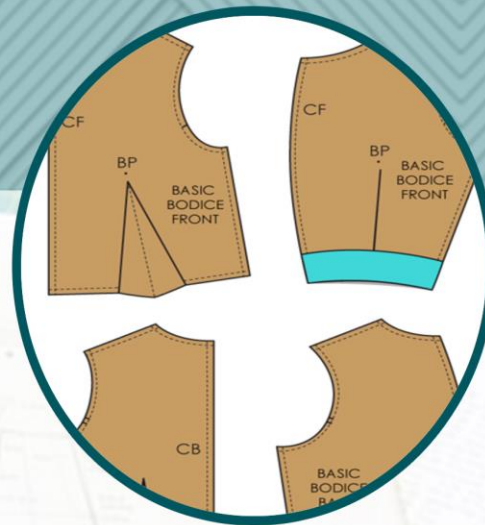


# National Vocational Certificate Level 1 in textiles (Pattern Drafting & Grading)

## Competency Standards



**National Vocational & Technical Training Commission**

5th Floor, Evacuee Trust Complex

Sector F-5/1, Islamabad

Tel: +92 51 904404

Fax: +92 51 904404

Email: info@navttc.org

**Author:**

Ms. Mehwish Ahsan (HOI - Milange Institute Lahore)

**Reviewed by:**

Dr. Raimund Sobetzko (Team Leader, Component 2 TVET Reform Support Programme) , Mr. Muhammad Naeem Akhtar ( Deputy Team Leader Component 2 TVET Reform Support Programme )

**Layout and Design by:**

Ms. Maria Arif ( Freelance Consultant )

**Date of approval by NCRC:**

8th -9th Jan 2015

**Date of Notification:**

16th July 2015, vide notification no F.2-1/2013-DD(VT)

This curriculum has been produced by the National Vocational & Technical Training Commission (NAVTTCC) with the technical assistance of TVET Reform Support Programme, which is funded by the European Union, the Embassy of the Kingdom of the Netherland, Federal Republic of Germany and the Royal Norwegian Embassy. The Programme has been commissioned by the German Federal Ministry for Economic Cooperation and Development and is being implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

## Table of Contents

<b>CURRICULUM SPECIFICATION FOR PATTERN DRAFTING AND GRADING .....</b>	<b>4</b>
<b>1. INTRODUCTION.....</b>	<b>4</b>
<b>2. OVERVIEW OF THE CURRICULUM FOR PATTERN DRAFTING AND GRADING.....</b>	<b>9</b>
<b>3. PATTERN DRAFTING AND GRADING CURRICULUM CONTENTS.....</b>	<b>11</b>
MODULE 1: INTERPRET TECHNICAL PACKAGE AND GARMENT SPECIFICATION .....	11
MODULE 2 TITLE: TAKE BODY AND GARMENT MEASUREMENTS .....	15
MODULE 3 TITLE: CREATE BASIC BODICE BLOCK AND PATTERN FOR GARMENTS .....	18
MODULE 4 TITLE: PERFORM PATTERN GRADING FOR GARMENT PRODUCTION.....	22
<b>5. LIST OF MACHINERY/EQUIPMENT/TOOLS .....</b>	<b>42</b>
<b>6. LIST OF CONSUMABLE MATERIALS.....</b>	<b>43</b>

# **CURRICULUM SPECIFICATION FOR PATTERN DRAFTING AND GRADING**

## **1. INTRODUCTION**

### **1.1 Description of the structure of the course**

<b>Module #</b>	<b>Title</b>	<b>Theory (Hours)</b>	<b>Practical (Hours)</b>	<b>Total (Hour)</b>
1.	Interpret Technical Package and Garment Specification	10	40	50
2.	Take Body and Garment Measurements	10	40	50
3.	Create Basic Bodice Block and Pattern for Garments	60	240	300
4.	Perform Pattern Grading for Garment production	70	280	350
5.	Develop Professionalism	10	40	50

### **1.2 Duration of the course:**

The proposed curriculum is composed of **05** modules that will be covered in 800 hrs. It is proposed that the course may be delivered in a six months period (Five days a week). Training can also be scheduled on part time bases or in the evening classes. The distribution of contact hours is given below:

**Total            800 hrs**

**Theory            160 hrs (20%)**

**Practical        640 hrs (80%)**

### **1.3 Specific characteristics of this training programme:**

- This training programme is intended to be conducted at institutes; possessing adequate training facility e.g. equipped training room, tools, material etc.

- This training programme caters for the safety and precautionary measures to be practiced during training as well as at workplace, to eliminate any chance of injury.
- The training program covers pattern making drafting and grading.

#### **1.4 Main objectives of the training programme**

The objectives of this course are to:

- Increase standing stamina
- Follow the given instruction
- Identify tools according to their uses
- Draft the pattern precisely
- Measure accurately
- Apply pattern manipulation tool basic design
- Enhance productivity and ensure quality of products
- Utilize pattern drafting and grading material effectively.
- Provide industry with skilled workers whose scope with job knowledge and skills are identified.
- Provide technical and vocational training which reflects the requirements of industry.

#### **1.5 Skill development by action orientation:**

On successful completion of course, the trainees must have acquired the following knowledge & skills.

- Basic components
- Functions and uses of various tools
- Quality control

## **1.6 Entry level of trainees**

- Middle preferably Matriculation
- Minimum age limit for trainees will be 15 years and above.

## **1.7 Minimum qualification for teachers**

- 2 years diploma with 3 years in industrial training and working experience
- B.T& F (bachelor in textile and fashion designing)

The main aim of training providers is to develop work related skills and competency through comprehensive action orientation. This includes the willingness and ability of a student to act appropriately and professionally in different situations at work. The willingness and ability of students depends largely on the teacher's skills to perform goal-oriented tasks. This can be achieved by putting their technical knowledge and skills to use by developing a program of practical assessment that reflects learning outcomes given in the curriculum. The trainer will also support students in developing personal characteristics such as self reliance, reliability, responsibility, group sense and the ability to lead.

## **1.8 Medium of instruction**

Urdu, English, local language

## **1.9 Laws and Regulations**

- Material Good Storage Practices.
- ISO 9001:2008 Including core standards for health.
- Pakistan Standard and Quality Control Authority (PSQCA) Standards.
- Workplace regulations 1992 Ministry of Labour, Govt of Pakistan

- Deal with hazards in accordance with workplace instructions and legal requirements.
- The Management of Health and Safety at Work Regulations 1992 (dermatitis and asthma).
- Hazard Analysis and Critical Control Point (HACCP).

### **1.10 Recommended teaching materials**

- Trainer Guide and Learner Guide.
- Research through internet about latest pattern making techniques.

### **1.11 Definition of trade**

Pattern drafting is most often associated with apparel. Pattern grading is a process of reducing and enlarging finished pattern in terms of sizes. Grading rules determine that how a pattern size increases or decreases when changing a size. Fabric types also influence pattern grading standards.

### **1.12 Job Opportunities available immediately and in the future**

After completion of the training, trainee can find the employment opportunities in the following disciplines.

- Knitted and woven garments factories
- Cottage Industry
- Garment Factories
- Textile Setups
- Entrepreneurship

### **1.13 Competencies gained after completion of the course**

At the end of the course, the trainee must be able to attain the following competencies:

- Know job requirements of technical package
- Communicate with others
- Work in a team
- Apply health and safety requirement.
- Use and maintain drafting and grading tools
- Create basic block and pattern
- Take body and garment measurements
- Perform grading and production
- Demonstrate professionalism
- Manage time

#### **1.14 Personal requirement:**

A Pattern Drafter should have good eyesight, eye-hand-leg coordination and vision including near vision, distance vision, color vision, depth perception and ability to change focus.



## 2. OVERVIEW OF THE CURRICULUM FOR PATTERN DRAFTING AND GRADING

Module Title and Aim	Learning Units	Theory Hrs.	Workplace Hrs	Timeframe of Modules
<p><b>Module 1: Interpret Technical Package and Garment Specification.</b></p> <p><b>Aim:</b> This module identifies the skills and knowledge required to develop specification sheets from a given garment and interpret this sheet in reference to technical package. This module also focuses on unit and size systems.</p>	<p><b>LU-1:</b> Interpret Tech pack</p> <p><b>LU-2:</b> Document specification of the supplied sample garment.</p> <p><b>LU-3:</b> Compare spec sheet in accordance with Tech Pack.</p>	10	40	50
<p><b>Module 2: Take Body and Garment Measurements.</b></p> <p><b>Aim:</b> This module identifies the skills and knowledge required to take body and garments measurements in accordance with the organization's approved guidelines, procedures and industry standards.</p>	<p><b>LU-1:</b> Obtain standardized body and garment measurement.</p> <p><b>LU-2:</b> Prepare measurement chart.</p>	10	40	50
<p><b>Module 3: Create Basic Bodice Block and Pattern for Garments</b></p> <p><b>Aim:</b> This module identifies the skills and knowledge required to create block and patterns for different types of garments as per industry standards.</p>	<p><b>LU-1:</b> Develop bodice blocks.</p> <p><b>LU-2:</b> Create pattern using basic block</p>	60	240	300

Module Title and Aim	Learning Units	Theory Hrs.	Workplace Hrs	Timeframe of Modules
<p><b>Module 4: Perform Pattern Grading for Garment Production</b></p> <p><b>Aim:</b> This module identifies the skills and knowledge required to grade patterns using basic bodice blocks for production requirements.</p>	<p><b>LU-1:</b> Trace off basic pattern for grading  <b>LU-2:</b> Mark grade points using formulas  <b>LU-3:</b> Make the final patterns from grading  <b>LU-4:</b> Review shapes and specs of all patterns</p>	70	280	350
<p><b>Module 5: Develop Professionalism</b></p> <p><b>Aim:</b> The competency standard is designed to differentiate professionalism and being professional. This way of being is made up of appearance, manner, communication, interacting, attitudes, approach, skills and openness to grow. Professionalism is a combination of taught aspects, like knowledge and skills, and learning gained through experience.</p>	<p><b>LU-1:</b> Communicate with co-workers  <b>LU-2:</b> Manage time  <b>LU-3:</b> Work in a team  <b>LU-4:</b> Follow health and safety requirements</p>	10	40	50

### 3. Pattern Drafting and Grading Curriculum Contents

#### (Teaching and Learning Guide)

#### Module 1: Interpret Technical Package and Garment Specification

**Objective of the Module:** This module identifies the skills and knowledge required to develop specification sheets from a given garment and interpret this sheet in reference to technical package. This module also focuses on unit and size systems.

**Duration: 50 hours**

**Theory: 10 hours**

**Practical: 40 hours**

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
<b>LU-1 : Interpret Tech pack</b>	<p><b>Trainee will be able to:</b></p> <ul style="list-style-type: none"> <li>Identify the Tech pack</li> <li>Clarify the content of tech pack.</li> </ul>	<ul style="list-style-type: none"> <li>Describe tech pack.</li> <li>Explain different types of tech packs.</li> <li>Identify content of the tech pack</li> <li>Explain tech pack utilization.</li> </ul>	05	<ul style="list-style-type: none"> <li>Tech Pack</li> <li>Stationary</li> <li>Multimedia</li> <li>Note book</li> </ul>	Class room
<b>LU-2: Document specification of the supplied sample garment</b>	<p><b>Trainee will be able to:</b></p> <ul style="list-style-type: none"> <li>Interpret different types of garment samples and their types.</li> <li>Take required</li> </ul>	<p>Explain different types of garments and their styles:</p> <ul style="list-style-type: none"> <li>Tops-classic shirt, traditional shirts, tunic, blouses etc</li> </ul>	30	<ul style="list-style-type: none"> <li>Garments as Samples</li> <li>Pattern Table</li> <li>Measuring tape</li> </ul>	Pattern Making Lab

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
	<p>measurements and style details from sample garment</p> <ul style="list-style-type: none"> <li>• Develop specification sheet in accordance to the taken measurements.</li> </ul>	<ul style="list-style-type: none"> <li>• Tops-classic shirt, traditional shirts, tunic, blouses etc</li> <li>• Bottoms-pants, trouser, skirts, shorts.</li> <li>• One piece garment- jump suits, frocks, gowns, abaya, robes.</li> <li>• Outer-wear- scarf, sweat-shirts, jackets.</li> <li>• Describe measurement criteria.</li> </ul> <p>Explain different types of unit systems:</p> <ul style="list-style-type: none"> <li>• British system</li> <li>• Metric system</li> </ul> <ul style="list-style-type: none"> <li>• Demonstrate the</li> </ul>		<ul style="list-style-type: none"> <li>• Stationary</li> <li>• French curve</li> <li>• Japanese scale</li> <li>• Note pad</li> </ul>	

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
		<p>procedure of taking sample garment specifications.</p> <ul style="list-style-type: none"> <li>• Explain the contents of specification sheet.</li> <li>• Demonstrate the procedure of developing a specification sheet.</li> </ul> <p>Explain different types of size systems:</p> <ul style="list-style-type: none"> <li>• Small, medium, large, X-large etc.</li> </ul>			
<p><b>LU-3 : Compare spec sheet in accordance with Tech Pack</b></p>	<p><b>Trainee will be able to:</b></p> <ul style="list-style-type: none"> <li>• Check specification sheet against technical package requirements.</li> <li>• Make necessary adjustments to documented specifications to meet technical package requirements.</li> </ul>	<p>Explain technical package specifications:</p> <ul style="list-style-type: none"> <li>• Contents</li> <li>• Types (tops, bottoms, outer-wears, one-piece)</li> <li>• Purpose</li> <li>• Importance</li> </ul> <ul style="list-style-type: none"> <li>• Demonstrate the</li> </ul>	<p>15</p>	<ul style="list-style-type: none"> <li>• Garments as Samples</li> <li>• Pattern Table</li> <li>• Measuring tape</li> <li>• Stationary</li> <li>• French curve</li> <li>• Japanese</li> </ul>	<p>Pattern Making Lab</p>

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
	<ul style="list-style-type: none"> <li>Verify measurements and adjustments as per tech pack.</li> </ul>	<p>procedure of reading the tech pack.</p> <ul style="list-style-type: none"> <li>Demonstrate the process of checking and comparing spec sheet in reference to tech pack.</li> <li>Procedure of making adjustments.</li> </ul>		<p>scale</p> <ul style="list-style-type: none"> <li>Note pad</li> <li>Tech Packs</li> </ul>	

**Module 2 Title: Take Body and Garment Measurements**

**Objective of the Module:** This module identifies the skills and knowledge required to take body and garment measurements in accordance with the organizations approved guidelines, procedures and industry standards.

**Duration: 50 hours**

**Theory: 10 hours**

**Practical: 40 hours**

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
LU-1 Obtain standardized body and garment measurement.	<p><b>Trainee will be able to:</b></p> <ul style="list-style-type: none"> <li>• Arrange measurement tools.</li> <li>• Measure body / garment parts vertically.</li> <li>• Measure body / garment parts horizontally.</li> <li>• Take circumferential measurements of body/garment parts</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate proper handling and placement of measuring tools.</li> <li>• Describe measurements and calculations.</li> </ul> <p>Process of taking vertical body measurements:</p> <ul style="list-style-type: none"> <li>• Shoulder to bust</li> <li>• Front shoulder to waist</li> <li>• Down centre back</li> <li>• Length</li> <li>• Sleeves length</li> <li>• Waist to hip</li> <li>• Length</li> <li>• Crotch length</li> </ul>	25	<ul style="list-style-type: none"> <li>• Multimedia</li> <li>• Measuring Tape</li> <li>• Dummy/Body Form</li> <li>• Stationery</li> <li>• Sample Garment</li> </ul>	Class Room / Lab

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
		Demonstrate horizontal body measurements: <ul style="list-style-type: none"> <li>• Shoulder to shoulder</li> <li>• Shoulder to neck</li> <li>• Full back</li> </ul> Demonstrate circumferential measurements: <ul style="list-style-type: none"> <li>• Neck</li> <li>• Bust</li> <li>• Waist</li> <li>• Hip</li> <li>• Cross back</li> <li>• Sleeves hole</li> <li>• Bicep</li> <li>• Elbow</li> <li>• Wrist</li> <li>• Waist</li> <li>• Hip</li> <li>• Bottom</li> </ul>			
<b>LU-2</b> <b>Prepare measurement chart</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Prepare accurate measurement chart for drafting patterns.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the importance of measurement chart.</li> </ul>	25	<ul style="list-style-type: none"> <li>• Multimedia</li> <li>• Measuring Tape</li> <li>• Dummy/Body Form</li> </ul>	Class Room / Lab



Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
	<ul style="list-style-type: none"> <li>• Develop measurement chart for women garments as per style and standards.</li> <li>• Develop measurement chart for men as per style and standards.</li> <li>• Prepare metric / British unit systems conversion charts according to measurement chart.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the procedure of writing the measurement chart.</li> <li>• Measurement charts for women garments including kids and adults.</li> <li>• Measurement charts for men garments including kids and adults.</li> </ul>		<ul style="list-style-type: none"> <li>• Stationery</li> <li>• Sample Garment</li> </ul>	

**Module 3 Title: Create Basic Bodice Block and Pattern for Garments**

**Objective of the Module:** This module identifies the skills and knowledge required to create block and patterns for different types of garments as per industry standards.

**Duration: 300 hours**

**Theory: 60 hours**

**Practical: 240 hours**

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
<b>LU-1:</b> <b>Develop bodice blocks</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>Identify basic terms used in pattern making for bodice block development.</li> <li>Identify types of blocks.</li> <li>Develop front bodice block according to size chart.</li> <li>Develop necklines and other lines.</li> <li>Apply basic calculations to work with bodice block.</li> <li>Apply the specification on all the parts, shapes,</li> </ul>	<ul style="list-style-type: none"> <li>Explain various tools related to pattern making.</li> </ul> <p>Describe types of blocks</p> <ul style="list-style-type: none"> <li>Basic block</li> <li>Styled block</li> </ul> <ul style="list-style-type: none"> <li>Demonstrate the implementation procedure of size chart to create bodice blocks.</li> <li>Explain middle size and its importance to create basic block.</li> <li>Demonstrate the procedure of creating a basic bodice block by</li> </ul>	140	<ul style="list-style-type: none"> <li>Measuring tools</li> <li>Cutting tools</li> <li>Marking tools</li> <li>Size charts</li> <li>Specification sheets</li> <li>Sharpener</li> <li>Pearl pins</li> <li>Drafting sheets</li> <li>Pattern making sheets</li> <li>Drafting pencils</li> </ul>	Pattern Making Lab

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
	<p>spaces, length, width and curves on the block.</p> <ul style="list-style-type: none"> <li>• Develop back bodice block.</li> <li>• Develop sleeves block according to specification.</li> </ul>	<p>using middle size.</p> <ul style="list-style-type: none"> <li>• Demonstrate the procedure of block cutting.</li> <li>• Procedure of making sleeves blocks.</li> <li>• Drawing techniques</li> </ul>		<ul style="list-style-type: none"> <li>• Eraser</li> <li>• Tracing sheets</li> <li>• Thin papers</li> <li>• Masking tape</li> </ul>	
<p><b>LU-2</b> <b>Create pattern using basic block</b></p>	<p><b>Trainee will be able to:</b></p> <ul style="list-style-type: none"> <li>• Arrange tools/equipment as per requirement</li> <li>• Develop basic ladies shirt pattern</li> <li>• Prepare different patterns of ladies dresses with variations in line, design, cut and style etc</li> <li>• Develop basic gent's shirt pattern</li> <li>• Prepare different patterns of gent's</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the use tools and equipment precisely for drafting</li> <li>• Explain the marking of grain line and its importance.</li> <li>• Explain notches and its types.</li> <li>• Describe the importance of annotations and how to interpret it.</li> <li>• Demonstrate procedure of pattern making of:</li> </ul>	<p>160</p>	<ul style="list-style-type: none"> <li>• Measuring tools</li> <li>• Cutting tools</li> <li>• Marking tools</li> <li>• Size charts</li> <li>• Specification sheets</li> <li>• Sharpener</li> <li>• Pearl pins</li> <li>• Drafting sheets</li> <li>• Pattern making sheets</li> </ul>	<p>Pattern Making Lab</p>

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
	<p>dresses with variations</p> <ul style="list-style-type: none"> <li>• Trace basic trouser block for trouser pattern as per style</li> <li>• Add required ease as per design requirement</li> <li>• Add seam allowances accordingly</li> <li>• Use notches and annotations</li> <li>• Draft belt, fly, zipper/front button extension</li> <li>• Label all the cutting details on each piece of drafted pattern</li> <li>• Develop basic ladies trouser pattern</li> <li>• Prepare different patterns of ladies</li> </ul>	<ul style="list-style-type: none"> <li>• A-Line shirt</li> <li>• Open</li> <li>• Panels/ Tail</li> <li>• Angrakha</li> <li>• Kurta</li> <li>• Yoke dress</li> <li>• Demonstrate the procedure of different patterns: <ul style="list-style-type: none"> <li>• T-Shirt</li> <li>• Polo shirt</li> <li>• Waist coat</li> <li>• Kurta / Sherwani</li> </ul> </li> <li>• Procedure of pattern making of <ul style="list-style-type: none"> <li>• Basic trouser</li> <li>• Bell bottom</li> <li>• Palazzo</li> <li>• Skirts</li> <li>• Churidar</li> <li>• Sharara / Gharara</li> </ul> </li> <li>• Demonstrate the procedure of :</li> </ul>		<ul style="list-style-type: none"> <li>• Drafting pencils</li> <li>• Eraser</li> <li>• Tracing sheets</li> <li>• Thin papers</li> <li>• Masking tape</li> <li>• Tracing wheel</li> </ul>	

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
	trousers <ul style="list-style-type: none"> <li>• Prepare patterns of gent's trouser.</li> </ul>	<ul style="list-style-type: none"> <li>• Dress pant</li> <li>• Trouser</li> <li>• Shalwar</li> <li>• Describe how to trace the blocks accurately</li> <li>• Demonstrate the application of ease and seam allowances</li> <li>• Demonstrate the process of making belt, fly, zipper/front button extension</li> <li>• Demonstrate the process of labeling</li> <li>• Demonstrate cutting process of pattern</li> </ul>			

**Module 4 Title: Perform Pattern Grading for Garment Production**

**Objective of the Module:** This module identifies the skills and knowledge required to grade patterns using basic bodice blocks for production requirements.

**Duration: 350 hours**

**Theory: 70 hours**

**Practical: 280 hours**

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
LU-1 Trace off basic pattern for grading	<p><b>Trainee will be able to :</b></p> <ul style="list-style-type: none"> <li>• Mark grain line and set alignments</li> <li>• Trace the middle pattern on sheet for grading purposes</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the procedure of aligning the pattern for tracing</li> <li>• Demonstrate the application of grain line</li> <li>• Demonstrate the procedure of tracing a pattern.</li> </ul>	30	<ul style="list-style-type: none"> <li>• Papers</li> <li>• Masking tape</li> <li>• Tracing wheel</li> <li>• Measurement tapes</li> <li>• Set squares</li> <li>• Japanese scale</li> <li>• French curve</li> <li>• Tech pack</li> <li>• Spec Sheet</li> <li>• Basic (middle sized) Pattern</li> <li>• Stationary</li> </ul>	Pattern Making Lab

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
<b>LU-2</b> <b>Mark grade points using formulas</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Use tech pack to grade pattern</li> <li>• Use grading formulas and grading techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the use of Tech Pack in grading the pattern</li> <li>• Demonstrate the calculation of formulas</li> <li>• Explain the use of grading points and markings on a pattern</li> </ul>	20	<ul style="list-style-type: none"> <li>• Papers</li> <li>• Masking tape</li> <li>• Tracing wheel</li> <li>• Measurement tapes</li> <li>• Tech pack</li> <li>• Spec Sheet</li> <li>• Basic (middle sized) Pattern</li> <li>• Stationary</li> </ul>	Pattern Making Lab
<b>LU-3</b> <b>Make the final patterns from grading</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Mark grading points for pattern grading on traced pattern</li> <li>• Apply grading Rule</li> <li>• Cut the pattern accurately.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the grading rules and its importance               <ul style="list-style-type: none"> <li>• Grading lines</li> <li>• Grading points</li> <li>• Measurements</li> <li>• Grading formula and calculations.</li> <li>• Shaping</li> </ul> </li> <li>• Demonstrate the procedure of marking</li> </ul>	240	<ul style="list-style-type: none"> <li>• Papers</li> <li>• Masking tape</li> <li>• Tracing wheel</li> <li>• Measurement tapes</li> <li>• Set squares</li> <li>• Japanese scale</li> </ul>	Pattern Making Lab

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
		<p>the grading lines and points.</p> <ul style="list-style-type: none"> <li>• Demonstrate the procedure of taking measurements for grading purposes</li> <li>• Demonstrate shaping of different lines of pattern in reference to tech pack</li> <li>• Demonstrate the complete procedure of cutting a graded pattern</li> <li>• Explain how to finalize the pattern by checking all graded components of the pattern for one size</li> </ul>		<ul style="list-style-type: none"> <li>• French curve</li> <li>• Tech pack</li> <li>• Spec Sheet</li> <li>• Basic (middle sized) Pattern</li> <li>• Stationary</li> <li>• Scissors</li> </ul>	
<b>LU-4 – Review shapes and specs of all patterns</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Identify shapes and specs</li> <li>• Analyse shapes and specs</li> </ul>	<ul style="list-style-type: none"> <li>• Understand relationship between final shapes and specs, and required pattern</li> <li>• Describe any changes required to prepare</li> </ul>	60	<ul style="list-style-type: none"> <li>• Graded pattern</li> <li>• Spec sheet</li> <li>• Tech pack</li> </ul>	Pattern Making Lab



Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
	<ul style="list-style-type: none"> <li>Apply changes in shapes and specs where required</li> </ul>	final pattern  <ul style="list-style-type: none"> <li>Explain safe work practices when grading for production</li> </ul>			

## Module 5 Title: Develop Professionalism

**Objective of the Module:** This module is designed to differentiate professionalism and being professional. This way of being is made up of appearance, manner, communication, interaction, attitudes, approach, skills and openness to grow. Professionalism is a combination of taught aspects, like knowledge and skills, and learning gained through experience.

**Duration: 50 hours**

**Theory: 10 hours**

**Practical: 50 hours**

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
LU-1 <b>Communicate with co-workers</b>	<p><b>Trainee will be able to:</b></p> <ul style="list-style-type: none"> <li>Communicate with other team members using appropriate verbal, written and body language</li> <li>Communicate with co-workers in other teams using appropriate verbal, written and body language.</li> <li>Clarify design requirements for pattern making with designer</li> <li>Communicate effectively using</li> </ul>	<ul style="list-style-type: none"> <li>Briefly explain basic communication theory as it applies to the workplace</li> <li>Explain factors required to communicate effectively and precisely within same organization</li> <li>Explain the appropriate and professional use of electronic and relative media</li> </ul>	10	<ul style="list-style-type: none"> <li>Handouts</li> <li>Multimedia</li> <li>Note books</li> <li>Stationary</li> </ul>	Class room

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
	electronic or other media as required				
<b>LU – 2 Manage time</b>	<p><b>Trainee will be able to:</b></p> <ul style="list-style-type: none"> <li>• Ensure assigned work is completed correctly</li> <li>• Meet the required deadlines</li> <li>• Work cooperatively with co-workers to complete assigned tasks.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the importance of time division and allocation according to task priorities, involving management and co-workers.</li> </ul>	10	<ul style="list-style-type: none"> <li>• Handouts</li> <li>• Multimedia</li> <li>• Note books</li> <li>• Stationary</li> </ul>	Class room
<b>LU-3 Work in a team</b>	<p><b>Trainee will be able to:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate skills required to work in teams.</li> <li>• Apply own job responsibilities in a team environment</li> <li>• Support colleagues to achieve team tasks and goals</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the importance of being a good team player.</li> <li>• Describe individual team member roles and responsibilities</li> <li>• List the skills required to work in teams</li> </ul>	10	<ul style="list-style-type: none"> <li>• Handouts</li> <li>• Multimedia</li> <li>• Note books</li> <li>• Stationary</li> </ul>	Class room
<b>LU-4 Follow workplace</b>	<p><b>Trainee will be able to:</b></p> <ul style="list-style-type: none"> <li>• Follow workplace health and safety</li> </ul>	<ul style="list-style-type: none"> <li>• List core workplace health and safety</li> </ul>	20	<ul style="list-style-type: none"> <li>• Handouts</li> </ul>	Class room

Learning Unit	Learning Outcome	Learning Elements	Duration (Hours)	Material Required	Learning Place
<b>health and safety requirements</b>	requirements <ul style="list-style-type: none"> <li>• Work safely at all times</li> <li>• Assist peers in case of emergency</li> <li>• Select and use tools and materials safely in accordance with manufacturer's instructions</li> </ul>	requirements <ul style="list-style-type: none"> <li>• Explain emergency procedures for fire, accident and injury</li> <li>• Define the importance of following operating instructions given for tools</li> </ul>		<ul style="list-style-type: none"> <li>• Multimedia</li> <li>• Note books</li> <li>• Stationary</li> <li>• First aid kit</li> </ul>	

## **4. ASSESSMENT GUIDANCE:**

Good assessment practices should be adopted for sessional and final assessments. Such practices by vocational training providers during Sessional and final assessments will form the basis of qualifying the trainees.

### **4.1 Differences between sessional and final assessments:**

**Sessional assessment** shall be on an all-time basis. Its purpose is to provide feedback on what students are learning:

- To the student: It will identify achievement and areas for further teaching and its level.
- To the teacher: It will evaluate the effectiveness of teaching, and guide to determine the future plan.

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 carried out on completion of a course or module. This determines 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 often 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.

### **4.2 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 work place lessons, assessment will focus on the quality of planning and executing the related process along with the quality of the product and/or evaluation of the process.

Methods will include direct assessment, as the most desirable form of assessment. For this, evidence shall be obtained by directly observing the student's performance.

Examples for direct assessment of Pattern Drafting and Grading will include:

- Work performances, for example develop patterns for different garments.
  - Demonstrations, for example demonstrating the cutting procedure of Patterns
  - Direct questioning, where the assessor will ask the student how many types and techniques of Pattern making.
  - Paper-based tests, such as multiple choice or short answer questions regarding tools used for pattern making, and technical terms, procedure of pattern grading, etc.
- 
- **Indirect assessment** shall be used where the performance could not be watched and evidence is gained indirectly.

Examples for indirect assessment of Pattern drafting and grading trade will include:

- Drafting and pattern making
- Use of technical package
- Developing spec sheet
- Developing size chart
- Review shapes and sizes
- Application of grading rule
- Demonstration of Techniques in making and grading patterns
- Storage of tools, equipments and material, the methods adopted to store products.

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).

### 4.3 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 the ability to develop patterns for garments is to be assessed and certified, the assessment should involve performance criteria that are directly related to pattern making.

**Reliability** means that the assessment is consistent. For example, if work performance of demonstrating pattern drafting and grading, 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.

### 4.4 Assessment strategy for the Dress Making Curriculum

This curriculum consists of 5 modules:

<b>Module-1: Interpret Technical Package and Garment Specification</b>
<b>Module-2: Take Body and Garment Measurements</b>
<b>Module-3: Create Basic Bodice Block and Pattern for Garments</b>
<b>Module-4: Perform Pattern Grading for Garment Production</b>
<b>Module-5: Develop Professionalism</b>

#### 4.5 Suggestions for 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 under the title planning for assessment.

#### 4.6 Suggestions of final assessment

Final assessment shall be 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 multiple choice and short answer questions, covering all modules. For practical assessment, the method of pattern making shall be selected to assess the competencies of student expected to be gained after this training course. It is also proposed that the assessment may take place in such a way that covers each of the modules. Time and markings may be distributed according to the importance of module that is reflected from the time invested during teaching.

	<b>Distribution of time and markings for assessment</b>		
	<b>Total</b>	<b>Out of total hrs / markings</b>	<b>Practical</b>
<b>MODULE 1</b>	15 %	3 %	12 %
<b>MODULE 2</b>	15 %	3 %	12 %
<b>MODULE 3</b>	30 %	6 %	24 %
<b>MODULE 4</b>	30 %	6%	24 %
<b>MODULE 5</b>	10 %	2 %	8 %
<b>Total</b>	<b>100%</b>	<b>20%</b>	<b>80%</b>



Few examples that examiner may use for the assessment are given below:

<b>MODULE 1: Interpret Technical Package and Garment Specification</b>	<b>PRACTICAL</b>	<b>THEORY</b>
<b>LU-1 Interpret Tech pack</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Identify the Tech pack</li> <li>• Clarify the content of tech pack.</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Describe tech pack.</li> <li>• Explain different types of tech packs.</li> <li>• Identify content of the tech pack</li> <li>• Explain tech pack utilization.</li> </ul>
<b>LU-2. Document specification of the supplied sample garment</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Interpret different types of garment samples and their types.</li> <li>• Take required measurements and style details from sample garment</li> <li>• Develop specification sheet in accordance to the taken measurements.</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Explain different types of garments and their styles.</li> <li>• Measurement criteria.</li> <li>• Different types of unit systems.</li> <li>• Procedure of taking sample garment specifications.</li> <li>• Contents of specification sheet.</li> <li>• Procedure of developing a specification sheet.</li> </ul>

<b>MODULE 1: Interpret Technical Package and Garment Specification</b>	<b>PRACTICAL</b>	<b>THEORY</b>
		<ul style="list-style-type: none"> <li>• Different types of size systems.</li> </ul>
<b>LU-3.</b>  <b>Compare spec sheet in accordance with Tech Pack</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Check specification sheet against technical package requirements.</li> <li>• Make necessary adjustments to documented specifications to meet technical package requirements.</li> <li>• Verify measurements adjustments as per tech pack.</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Technical package specifications:</li> <li>• Procedure of reading the tech pack.</li> <li>• Process of checking and comparing spec sheet in reference to tech pack.</li> <li>• Procedure of making adjustments.</li> </ul>

<b>MODULE 2: Take Body and Garment Measurements.</b>	<b>PRACTICAL</b>	<b>THEORY</b>
<b>LU-1.</b>  <b>Obtain standardized body and garment measurement.</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Arrange measurement tools</li> <li>• Measure body / garments parts vertically</li> <li>• Measure body / garment parts horizontally</li> <li>• Take circumferential measurements of body/garment parts</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Proper handling and placement of measuring tools</li> <li>• Measurements and calculations</li> <li>• Process of taking vertical body measurements.</li> <li>• Horizontal body measurement.</li> <li>• Circumferential measurements.</li> </ul>
<b>LU-2.</b>  <b>Prepare measurement chart</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Prepare accurate measurement chart for drafting patterns.</li> <li>• Develop measurement chart for women garments as per style and standards.</li> <li>• Develop measurement chart for men as per style and standards.</li> <li>• Prepare metric / British unit systems conversion charts according to measurement chart.</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Importance of measurement chart.</li> <li>• Procedure of writing the measurement chart.</li> </ul>

<b>MODULE 3: Create Basic Bodice Block and Pattern for Garments</b>	<b>PRACTICAL</b>	<b>THEORY</b>
<b>LU-1. Develop bodice blocks</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Identify basic terms used in pattern making for bodice block development.</li> <li>• Identify types of blocks</li> <li>• Develop front bodice block according to size chart</li> <li>• Develop necklines and other lines.</li> <li>• Apply basic calculations to work with bodice block.</li> <li>• Apply the specification on all the parts, shapes, spaces, length, width and curves on the block.</li> <li>• Develop back bodice block.</li> <li>• Develop sleeves block according to specification.</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Types of blocks</li> <li>• Implementation procedure of size chart to create bodice blocks.</li> <li>• Middle size and its importance to create basic block.</li> <li>• Procedure of creating a basic bodice block by using middle size.</li> <li>• Procedure of block cutting.</li> <li>• Procedure of making sleeves blocks.</li> <li>• Drawing techniques</li> </ul>
<b>LU-2. Create pattern by using basic block</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Arrange tools/equipment as per requirement</li> <li>• Develop basic ladies shirt pattern</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Tools and equipment precisely for drafting</li> <li>• Marking of grain line and its importance.</li> <li>• Notches and its types.</li> </ul>

<b>MODULE 3: Create Basic Bodice Block and Pattern for Garments</b>	<b>PRACTICAL</b>	<b>THEORY</b>
	<ul style="list-style-type: none"> <li>• Prepare different patterns of ladies dresses with variations in line, design, cut and style etc</li> <li>• Develop basic gent's shirt pattern</li> <li>• Prepare different patterns of gent's dresses with variations</li> <li>• Trace basic trouser block for trouser pattern as per style</li> <li>• Add required ease as per design requirement</li> <li>• Add seam allowances accordingly</li> <li>• Use notches and annotations</li> <li>• Draft belt, fly, zipper/front button extension</li> <li>• Label all the cutting details on each piece of drafted pattern</li> <li>• Develop basic ladies trouser pattern</li> <li>• Prepare different patterns of ladies trousers</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of annotations and how to interpret it.</li> <li>• Describe how to trace the blocks accurately</li> <li>• Application of ease and seam allowances.</li> <li>• Process of making belt, fly, zipper/front, button extension</li> <li>• Process of labeling.</li> <li>• Cutting process of pattern.</li> </ul>

<b>MODULE 3: Create Basic Bodice Block and Pattern for Garments</b>	<b>PRACTICAL</b>	<b>THEORY</b>
	<ul style="list-style-type: none"> <li>• Prepare patterns of gent's trouser.</li> </ul>	

<b>MODULE 4: Perform Pattern Grading for Garment Production</b>	<b>PRACTICAL</b>	<b>THEORY</b>
<b>LU-1. Mark grade points using formulas</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Use tech pack to grade pattern</li> <li>• Use grading formulas and grading techniques</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Use of Tech Pack in grading the pattern</li> <li>• Calculation of formulas</li> <li>• Grading points and markings on a pattern</li> </ul>
<b>LU-2. Trace off basic pattern for grading</b>	<b>Trainee will be able to :</b> <ul style="list-style-type: none"> <li>• Mark grain line and set alignments</li> <li>• Trace the middle pattern on sheet for grading purposes</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Procedure of aligning the pattern for tracing</li> <li>• Application of grain line</li> <li>• Procedure of tracing a pattern.</li> </ul>
<b>LU-3. Make the final patterns from grading</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Mark grading points for pattern grading on traced pattern</li> <li>• Apply grading Rule</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Grading rules and its importance</li> <li>• Procedure of marking the grading lines and points.</li> </ul>

<b>MODULE 4: Perform Pattern Grading for Garment Production</b>	<b>PRACTICAL</b>	<b>THEORY</b>
	<ul style="list-style-type: none"> <li>• Cut the pattern accurately.</li> </ul>	<ul style="list-style-type: none"> <li>• Procedure of taking measurements for grading purposes.</li> <li>• Shapes of different lines of pattern in reference to tech pack.</li> <li>• Procedure of cutting a graded pattern.</li> <li>• How to finalize the pattern by checking all graded components of the pattern for one size</li> </ul>
<b>LU-4. Review shapes and specs of all patterns</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Identify shapes and specs</li> <li>• Analyze shapes and specs</li> <li>• Apply changes in shapes and specs where required</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Understand relationship between final shapes and specs, and required pattern.</li> <li>• Describe any changes required to prepare final pattern.</li> <li>• Explain safe work practices when grading for production</li> </ul>

<b>MODULE 5:</b> <b>Develop Professionalism</b>	<b>PRACTICAL</b>	<b>THEORY</b>
<b>LU-1</b> <b>Communicate with co-workers</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Communicate with other team members using appropriate verbal, written and body language.</li> <li>• Communicate with co-workers in other teams using appropriate verbal, written and body language.</li> <li>• Clarify design requirements for pattern making with designer.</li> <li>• Communicate effectively using electronic or other media as required</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Basic communication theory as it applies to the workplace.</li> <li>• Factors required to communicate effectively and precisely within same organization.</li> <li>• Appropriate and professional use of electronic and related media</li> </ul>
<b>LU – 2</b> <b>Manage time</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Ensure assigned work is completed correctly.</li> <li>• Meet the required deadlines.</li> <li>• Work cooperatively with co-workers to complete assigned tasks.</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Importance of time division and allocation according to task priorities, involving management and co-workers.</li> </ul>
<b>LU-3</b> <b>Work in a team</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Demonstrate skills required to work in teams.</li> <li>• Apply own job responsibilities in a team</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Importance of being a good team player.</li> <li>• Individual team member roles and responsibilities.</li> </ul>



<b>MODULE 5:</b> <b>Develop Professionalism</b>	<b>PRACTICAL</b>	<b>THEORY</b>
	environment. <ul style="list-style-type: none"> <li>• Support colleagues to achieve team tasks and goals</li> </ul>	<ul style="list-style-type: none"> <li>• List the skills required to work in teams</li> </ul>
<b>LU-4</b> <b>Follow workplace health and safety requirements</b>	<b>Trainee will be able to:</b> <ul style="list-style-type: none"> <li>• Follow workplace health and safety requirements</li> <li>• Work safely at all times</li> <li>• Assist peers in case of emergency</li> <li>• Select and use tools and materials safely in accordance with manufacturer’s instructions</li> </ul>	<b>Trainees will be asked for:</b> <ul style="list-style-type: none"> <li>• Core workplace health and safety requirements.</li> <li>• Emergency procedures for fire, accident and injury.</li> <li>• Importance of following operating instructions given for tools</li> </ul>

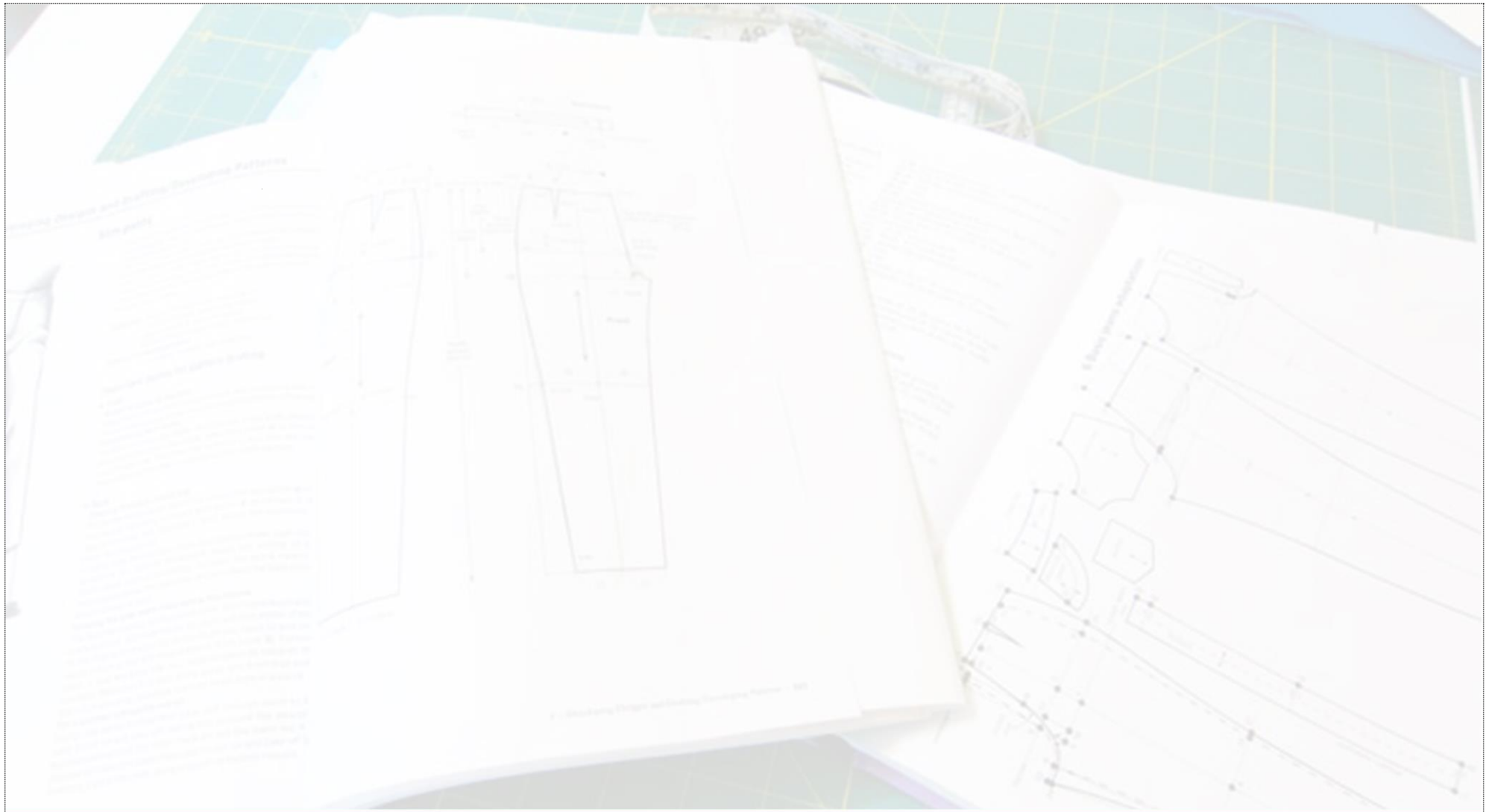
**5. List of Machinery/Equipment/Tools**  
**(For a Class of 25 Students)**

<b>Sr.No.</b>	<b>Nomenclature of Equipment/Tools</b>	<b>Quantity</b>
1	French Curves	25
2	Japanese Ruler	25
3	Paper Cutting Scissors	25
4	L-Square	25
5	Measuring Tape	25
6	Hip Curve Ruler	25
7	Notcher	25
8	Puncher	5
9	Tracing Wheel	25
10	Steel rule 100 cm scale	25
11	Paper cutter	5

**6. List of Consumable Materials**  
**(For a Class of 25 Students)**

<b>Sr. No</b>	<b>Name of Material/Items</b>	<b>Quantity/Student</b>	<b>For 25 students</b>
1	Pattern Sheet	25	625
2	Stationery (0.5 Clutch pencil, Eraser, Sharpener etc.)	1 set	25 sets
3	Tracing paper	10 sheets	250
4	Boxboard Sheets	25	200

- **Reference Material**
- **Books, Handouts**



**National Vocational & Technical Training Commission (NAVTTTC)**

5th Floor Evacuee Trust Complex Sector F-5/1,  
Islamabad.

T +92 51 904404

F +92 51 904404

E [info@navttc.org](mailto:info@navttc.org)

I <http://www.navttc.org/>