

## **Upgradation of ITIs into Centers of Excellence-Broad guidelines for implementation of the scheme**

### **Apparel**

These Centres will be providing multiskill training to meet the skill requirement of particular sector of industry with their active involvement in all aspects of training. The training will be provided in three parts as given below:

- ✓ Training in Basic skill areas for a period of one year.
- ✓ Training in Advanced modules of six months duration after Broad based basic Training(BBBT)
- ✓ The testing & certification for the Basic skill training & advanced training during next six months will be conducted by NCVT
- ✓ Training in specialized modules mainly in the industry(The course curricula, duration etc will be designed in consultations with the IMC/local industry). The trade testing & certification for specialized module will be done jointly by the State Government & Industry. Said certificate will have recognition from NCVT

As per the recommendations of the EFC, Training in the shop floor should constitute atleast 25-40% of the curriculum.

The training programme will have multi-entry and multi-exit provisions as given below:

- ✓ trainee can opt to go to the labour market after completing broad based basic training of one year duration or after completing advanced module.
- ✓ trainee can come back after some time to seek admission for advanced/ additional advanced /specialised module

#### **Training in Advanced modules**

- After the BBBT of one year duration, for subsequent training in Advanced Module, a CoE may select minimum three modules, so as to ensure that all the 96 trainees could be accommodated in the three modules in two shifts each.
- If it is felt that available modules are not sufficient to cater to the needs of local industry in a particular state, States may develop suitable module(s) accordingly in consultations with the industry & forward the same to DGE&T for seeking approval of NCVT.
- A trainee at a time can opt only for one module of 24 weeks duration.
- Admission Criteria, Space requirement, Qualification of instructor of the various modules of “**Apparel**” sector are attached herewith.

#### **Facilities for passed out trainees from Conventional Pattern for admission in Advanced module.**

Subject to availability of seats, NTC /NAC passed outs from conventional system of the trades mentioned against each advanced module in the enclosed statement, could be offered admission accordingly.

MODULE NO.	NAME OF THE MODULE	Admission criteria	Space requirement sq m	Duration In Weeks	Qualification/Status Of Instructor
AAT-01	Computer Aided Pattern Making, & “	Completed BBBT in Apparel sector OR NTC/NAC in relevant trade OR Diploma in relevant area	70	24 weeks	Degree in relevant area with minimum three years teaching/industrial experience in the relevant field  OR  Diploma in relevant area with min five years teaching/industrial experience in the relevant field
AAT-02	Fashion Designing	Completed BBBT in Apparel sector OR NTC/NAC in relevant trade OR Diploma in relevant area	70		
AAT-03	Shirts & Trousers”	Completed BBBT in Apparel sector OR NTC/NAC in relevant trade OR Diploma in relevant area	70		

# **Advanced Module for Sector “Apparel”**

## **“Fashion Designing”**

**(Duration – 6 months)**

**SECTOR / AREA : APPAREL**

**Duration : 6 months**

**Name of Course : “Fashion Designing”**

<b><u>Module No</u></b>	<b><u>Name of Module</u></b>	<b><u>Duration of Module in Week</u></b>
<b>1</b>	<b>Basic Sketching</b>	<b>12</b>
<b>2</b>	<b>Garment Sketching</b>	<b>12</b>

### **Sub Module: Basic Sketching**

<b>Week No</b>	<b>Theory</b>	<b>Practical</b>
1 & 2	Introduction to the Course : Career in Fashion World. Knowledge of Tools required for sketching . Safety Precautions to be kept in mind during use of tools. Terminology used in Fashion Designing.	Learning to draw the figures. Drawing straight female figure. Steps to draw a figure i.e. Page Planning, Proportions Planning, Geometric Shapes and Flash out the figures.
3 & 4	Introduction to the Fashion – its history and trends Difference in between Clothing and Fashion. Functions of Clothing. Fashion Cycle.	Practice of drawing different facial views as Front, Profile or Three Quarter. Practice of drawing Eyes, Nose, and Lips.
5.	Source of Inspiration of Fashion – Nature, Folk and Historical Costume, Museums, Galleries, Travel etc.  Elements of Design , line, shape, value, colour & texture.	Practice of Sketching of Hairs, Hands & Feet.
6.	Knowledge of Principles of Design- Repetition, Gradation, Rhythm, Radiation, Harmony, Contract Dominance, Proportion Balance . Knowledge of Pencil Techniques and Shade.	Practice of pencil technique to show shading, highlights, shadows, light, outlines etc.
7.	Colour & Colour theory Characteristics of colour : <ul style="list-style-type: none"><li>– Hue, Value, Chrome.</li><li>– Colour Wheel and Colour Schemes</li><li>– Physical effect of Colour.</li><li>– Colour Matching.</li><li>– Colour forecast</li></ul>	Practice of making colour wheel  Practice of making designs in different colour schemes
8. & 9.	Role of Fabric in Fashion. Different type of fabrics available. Fabric Properties. Knowledge of different type of texture & patterns – as Shiny Surface, Sheer Pattern ,Prints, Checks, Strips, Laces, Fur, Quilting etc.	Practice of developing Texture & patterns as Shiny Surface ,Sheer Pattern, Prints, Checks, Strips, Laces, Fur, Quilting etc.

10.	Knowledge of difference in Male and Female figure. Knowledge of Dress Code.	Sketching of male figures in different poses Sketching of male hands, feet etc.
11. & 12.	Stages of Knowledge of the children's growth - Toddlers, Children & Teenagers.	Practice of sketching of different child figures. Practice of sketching their hands, feet, face etc.

### **Sub Module: Garment Sketching**

13.	Knowledge of sketching of garments. Principles of sketching garments. Knowledge of Basic garment shapes Creation of illusion of three dimensional effect.	Practice of sketching clothed figure. Practice of giving effects to the garments.
14 & 15	Knowledge of basic garments details as : Necklines, Collars, Lapels, Sleeves, Cuffs, Gathers, Pleats, Ruffles, Frills, Cowls etc.	Practice of drawing different Necklines, Collars, Lapels, Sleeves, Cuffs, Gathers, Tucks, Pleats, Ruffles, Frills, Cowls, Gorses, Godets, Pockets etc.
16.	Knowledge of different types of Tops and Bodice. Knowledge of different types of Shirts	Practice of sketching Various Tops, Bodice and Shirts.
17. & 18.	Knowledge of different type of Jackets and Coats. Knowledge of different types of Pants.	Practice of Sketching different type of Jackets, Coats and Pants.
19. & 20.	Types and Properties of Garments according to various themes such as occasion, environment, season, purpose etc.	Practice of drawing garments according to occasion, environment, season and purpose etc.

20 to 24	<p><b>PROJECT:</b></p> <p>Work on a theme. Design the dresses, stitch one or two from them and present in the Fashion Show.</p>
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## Tools and Equipment

### For Theory Room

Sr. No.	Details	Remarks
1	Chair with armrest and writing pad	16 Nos.
2	White Board	Minimum 1 No.
3	Audio System of good sound quality OR Public Address System within the Class Room range	Minimum 1 No.
4	Overhead Projector with high quality inbuilt thermostat Condenser & Twin Lamp	Minimum 1 No.
5	Teaching Transparency OR Other Teaching Aid.	As per Requirement
6	Multimedia Projector (with all attachment)	Minimum 1 No.

### For Practical Room

Sr. No.	Details	Remarks
1	Instructor's table & chair	1set
2	Drawing Table	16 No
3	Revolving Stool cum chair with adjustable height	16 No
4	Drawing Boards	16 No
5	Scales 12", 24"	16 set
6	Set of set squared	16 set.
7	Lockers with 8 drawers for Trainees.	02 No
8.	Locks	16 No
9	Storage Almirah	As required
10	Book Shelf (Glass panel)	01 No
11	Set of Set Squares	17 Set
12	White Board with Accessories	01 Set
13	Air Conditioner Split type 1.5 Ton	01 No

- Neat and Clean premises duly painted.
  - Cold drinking water facility should be provided.
  - Classrooms and Lab facility available as per the requirement of the course.
  - Proper Lighting and ventilation provided.
  - Proper storage facility available to store the components, meters, etc.
- "A" class electrical line laying done with proper Earthing to avoid hazards.



# **Advanced Module for Sector Apparel**

## **“Shirts & Trousers”**

**(Duration – 6 months)**

**SECTOR / AREA : APPAREL**

**Duration : 6 months**

**Name of Course : Shirts & Trousers**

<b>Module No</b>	<b>Name of Module</b>	<b>Duration of Module in Week</b>
<b>1</b>	<b>Shirts</b>	<b>10</b>
<b>2</b>	<b>Trousers</b>	<b>10</b>
<b>3</b>	<b>Job Training &amp; Project</b>	<b>04</b>

### **Sub Module: Shirts**

<b>Week No</b>	<b>Theory</b>	<b>Practical</b>
1 & 2	Introduction to the course its importance and job opportunities. Different type of shirts available due to fitting aspect, Design, Collar, Armhole, Sleeve, Collar, Pocket, etc. Measurements required to draft a shirt. Methods of taking body measurements. Methods of taking measurements from garments. Study of Measurement charts.	Drafting of shirt based on standard measurements.  Practice of Drafting shirt for other size.  Practice of drafting shirt for individual measurements.
3.	Drafting of shirts Block, Front, Back Sleeves, Collar, Cuff (Full Size )  Practice of making Shirt Block in different sizes.	Practice of running the special Machines to be used in stitching of shirts.
4.	Different types of collars to be used in shirts Different types of sleeves to be used in shirts. Different types of cuffs to be used in shirt sleeves.	Practice of stitching the collars, cuffs with special machines.
5.	Adaptation of shirt block in designer shirts.  Adaptation of shirt block in safari shirt.	Practice of preparing collars with special machines. Practice of stitching shirts.
6.	Practice of cutting shirts in checks / strips (Broad check, Narrow check , symmetrical check, unsymmetrical check etc) Lay planning of components for matching of design.	Cutting & Stitching of texture designed shirts.

7.	Drafting of shirts with Raglan / Kimono sleeve. Drafting of shirts for abnormal figures as corpulent stooping figure	Practice of stitching shirts with Raglan / Kimono sleeve. Practice of stitching shirts for Corpulent / stooping figures.
8	Drafting of Jackets through direct measurement system and Adaptation through shirt block. Designing of jackets from Denim/ Suiting material.	Practice of stitching jackets with yokes, Slant pockets & front placket finished with zip.
9.	Knowledge of accessories to be used in shirts & designing of shirts with them.	Stitching of shirts using accessories
10.	Alteration in pattern due to fitting defects/design etc. Process of Finishing / Checking of Stitched shirt measurements.	Correction of such pattern and improving in stitched shirt Finishing, Pressing and Packing of Shirt.
<b><u>Sub Module: Trousers</u></b>		
11. & 12	Different types of trousers available due to the design, fitting, lengths, material etc. Material and accessories available for Trousers.	Practice of using the Hi – Tech machines to be used in stitching of Trousers.
13.	Different type of Hi - Tech machines available for stitching the Trousers Measurements required to draft a trousers. Methods of taking Body measurements for Trousers. Methods of taking measurements from trousers. Precautions to be taken during taking of measurements. Study of Measurement Charts. Study of Measurements of abnormal figures.	Practice of making different pockets with Hi – Tech machines . Practice of Drafting Trousers with Direct measurement system & Drafting of Trousers Block with standard measurement/ Individual measurement

14.	Knowledge of different style to be used in finishing of Belts, Front Plackets etc.	Practice of finishing of different Belts, Front Plackets with special machines.
15 to 18	<p>Knowledge of adaptation of trousers block in different styled trousers.</p> <p>Different types of pockets available in trousers.</p> <p>Drafting and Pattern making of different types of trousers according to individual measurements.</p> <p>Process of finishing / checking of measurements</p>	<p>Stitching of trousers finishing different</p> <ul style="list-style-type: none"> <li>- Pleated pant</li> <li>- One piece narrow bottom pant</li> <li>- Bell Bottom Pant</li> <li>- Jump Suit</li> <li>- Jeans</li> <li>- Pant for corpulent figures.</li> </ul> <p>Pressing &amp; Packing of trousers.</p>
19.	<p>Knowledge of fitting defects and their alterations</p> <p>Difference in ladies and Gents Trousers.</p>	<p>Practice of corrections / alterations in the Pattern due to defects.</p>
20.	<p>Different type of Ladies trousers.</p> <p>Measurements of ladies trousers.</p> <p>Drafting a ladies trousers.</p>	<p>Prepare pattern, cut, stitch a ladies trousers &amp; study the difference with gents trousers.</p>
<b><u>Sub Module: Job Training and Project</u></b>		
21 & 22	On – the – Job Training in any Export House working with related garments.	
23. & 24.	Design, Draft, cut and stitch a set of upper body and lower body garments and present the same.	

## Furniture Items

### For Theory Room

Sr. No.	Details	Remarks
1	Chair with armrest and writing pad	16 Nos.
2	White Board	Minimum 1 No.
3	Audio System of good sound quality OR Public Address System within the Class Room range	Minimum 1 No.
4	Overhead Projector with high quality inbuilt thermostat Condenser & Twin Lamp	Minimum 1 No.
5	Teaching Transparency OR Other Teaching Aid.	As per Requirement
6	Multimedia Projector (with all attachment)	Minimum 1 No.

### For Practical Room

Sr. No.	Details	Remarks
1	Instructor's table & chair	1set
2	Drawing Table	16 No
3	Revolving Stool cum chair with adjustable height	16 No
4	Drawing Boards	16 No
5	Lockers with 8 drawers for Trainees.	02 No
6	Storage Almirah	As required
7	Book Shelf (Glass panel)	01 No
8	Set of Set Squares	17 Set
9	White Board with Accessories	01 Set
10	Air Conditioner Split type 1.5 Ton	01 No

### II) Tools, Machinery Equipment etc. for a batch of 16 Trainee

Sr. No	Description	Quantity
<b><i>Trainee Toolkit</i></b>		
1	Measuring tools – wooden scale, arm sticks(all types), Measure tape, ruler (wooden), Ruler (steel) (24")	17 nos.
2	Cutting Seizers 6"	17 nos.
3	Different type of dummies – children, ladies and gents	As per Requirement
4	Different type of cloth hanger	As per Requirement
5	Scissor 10"	17 nos.
6	Scissors 8"	17 nos.
7.	Tailors Square Plastic	17 nos.
8.	Leg Shaper Plastic	17 nos.

9	Marking Wheel	17 nos.
10.	Pattern Master ( Shaper Set )	17 nos.
11.	Hip Curve plastic	17 nos.
12.	Arm hole French curve big plastic	17 nos.
13	Sharpener (Table Model)	02 nos.
14	Gum tape Dispenser	02 nos.
15.	Waste paper basket – tin\plastic	08 nos.
16.	Cutting table with cork sheet top -8' x 6'	16 nos.
17.	Pattern Punch ¼"	02 nos.
18.	Pattern notcher	02 nos.
19.	Pattern Hanging Hooks	75 nos.
20.	Pattern Hanging Stand	02 nos.
21.	Gent's dress form with stand size 32,34,36,38	01 no.
22.	Calculator Desk Type	01 no.
23.	Steel Lockers over all sizes 195 cm x 90 cm x 48 cm having a compartment grills with provision for separate locks	03 nos.
24.	Locks for above	16 nos.
25.	Wall Clock	01 no.
26.	White Board (fixed on wall) 120 x 120 cm.	01 no.
27	O.H.P. with trolley and screen	01 no.s

## Tools and Equipment

### For Practical Room

Sr. No.	Details	Qty.
1	Single Needle High Speed Industrial Straight lock stitch machine	16 nos.
2	Twin needle feed lock stitcher with thread trimmer	01 no.
3	Single needle, 2 thread ultra high speed over lock sewing machine	01 no.
4	Double needle feed off the arm	01 no.
5	Twin needle 3 thread flat bed covering stitcher with front cutter for making belt 100 ps.	01 no.
6	Single needle flat bed double chain stitcher	01 no.
7	Automatic lock stitch placket welt sewer	01 no.
8	Electronic button hold machine	01 no.
9	Electronic bar tack machine	01 no.
10	Belt fixing machines	01 no.
11.	5 thread over lock machine with safety stitch	01 no.
12.	Blind stitch machine	01 no.

13.	Double needle patch pocket fixing machine	01 no.
14.	Collar stitching and turning machine	01 no.
15.	Cuff stitching and turning machine	01 no.
16.	Fusing Machine	01 no.
17.	Vacuum Pressing system	01 no.
18.	Stain removing table with accessories	01 no.

- Neat and Clean premises duly painted.
  - Cold drinking water facility should be provided.
  - Classrooms and Lab facility available as per the requirement of the course.
  - Proper Lighting and ventilation provided.
  - Proper storage facility available to store the components, meters, etc.
- "A" class electrical line laying done with proper Earthing to avoid hazards.



Upgradation of ITIs into Centre of Excellence (CoE)  
Apparel Sector

**Advanced Module for Sector Apparel :**

**COMPUTER AIDED PATTERN  
MAKING & DESIGNING  
(Duration – 6 months)**

Upgradation of ITIs into Centre of Excellence (CoE)  
**Apparel Sector**

**SECTOR / AREA : APPAREL**

**BROAD BASED BASIC TRAINING**

**Duration : 6 months**

**Name of Course : Computer Aided Pattern Making ( Advanced)**

<b><u>Module No</u></b>	<b><u>Name of Module</u></b>	<b><u>Duration of Module in Week</u></b>
<b>1</b>	<b>Pattern Making</b>	<b>12</b>
<b>2</b>	<b>Fashion Studio</b>	<b>12</b>

## Upgradation of ITIs into Centre of Excellence (CoE)

### Apparel Sector

#### PATTERN MAKING

Week No.	Theory	Practical
1	Career in CAD Technology. Introduction to Computer behaviors. Safety precautions to be taken during the use of computer. Commands of Word, Excel, Power Point, Internet.	Search information from NET, save and prepare a power point presentation related to the subject.
2	Introduction to the different software related to the subject available in the market Knowledge of different modules in the Software. Advantages and Disadvantages of Software. Working behavior of Export Houses . Process flow chart.	Practice of different commands as creation of point line, dart, fullness, pleats etc.
3	<u>Digitizing</u> - Knowledge of process of Digitizing. Knowledge of Digitizer. Importance of Digitizing.	Practice of Tools to use digitizer. Practice of Pattern Digitizing. Save the digitized pattern. Apply Rule Table.
4 & 5	<u>Grading</u> -- Importance Of Grading Types of Grading Different types of Grading <ul style="list-style-type: none"> <li>- Point Grading</li> <li>- Line Grading</li> <li>- Body Grading</li> <li>- Rule Grading</li> <li>- Button Grading etc.</li> </ul> Grading of Internal point Match grading through comparison.	Practice of Grading the Pattern in different manner-Point grading, line grading, body grading, rule grading, button grading, grading internal points etc.
6 & 7	<u>Marker Making</u> -- Introduction to Marker Making. Utility of Marker Technical Terms related to Marker Different forms / Tables required for Marker Making. Knowledge of Fabric Details – One way, two way, fabric width, knit / woven fabric Knowledge of advanced tools related to efficient / Fast marker making  Different calculations related to marker making	Practice of filling different forms/ tables  Practice of Marker Making – Manual practice  Practice of Marker Making – Auto nesting  Practice of efficient maker making using advanced tools  Block / Buffer

**Upgradation of ITIs into Centre of Excellence (CoE)**  
**Apparel Sector**

8	<u>Pattern Making</u> Knowledge of Industrial measurement charts like US, UK measurements/ specifications	Practice of Making patterns of different styles.
9	Reading of spread sheets Knowledge of contents of spread sheet.	Pattern creation through spread sheets.
10.	Use of Technical tools like Dart manipulation, adding fullness, pleats etc.	Application of technical tools in pattern manipulation and prepare final pattern.
11.	Knowledge of Production sheets, Reports, Costing, Inventory Control etc.	Practice of Different report generation and process control
12.	Knowledge of Plotter and Auto Cutting system , Spreading Techniques.	Practice of working with plotter and auto cutting system Printing of pattern in different ways.
<b>FASHION STUDIO</b>		
13.	Importance of fashion designing in the industry Knowledge of available facilities related to fashion sketching Knowledge of terminology related to the subject. Knowledge of Tools to draw a model Knowledge of scanner and scanning tools	Practice of tools to create a new model – free hand, according to measurements. Practice of scanning new model & work on it
14	Knowledge of tools to drape a dress to the model.	Practice of Tools to drape a dress to the model- 2D draping, 3D draping
15.	Knowledge of Tools to stitch the pattern & check over the model.	Practice of stitching the pattern & checking over the model about the fitting aspect & alteration of pattern.
16	Knowledge of tools to add accessories to the dress.	Practice of adding different accessories to the dress as laces, ribbons, Buttons etc.
17.	Knowledge of tools to create various effects to the Dress.	Practice of scanning a fabric. Create new design of the fabric. Apply fabric design / texture variation. Apply colour variation in the design. Drape new fabric to the model.
18.	Knowledge of material available in software library& process to use the same	Practice to use the library material
19 to 22	Four weeks on the job training in any Export House where CAD is available.	
23 & 24	Submit a job training report. Prepare a project related to the subject & present the same.	

***1) Tools, Machinery Equipment etc. for a batch of 16 Trainee***

Upgradation of ITIs into Centre of Excellence (CoE)  
Apparel Sector

**Computer Lab**

Sl. No	Description	Quantity
<b>Software</b>		
1	Software Corel Draw, Photoshop, Adobe Illustrator, Image ready, Idea or equivalent ( Licensed Version)	As reqd.
2	Software for Pattern Making, Grading and Marker making (latest version )	17 No.
3	Software for Textile Designing (latest Version ) Fashion Studio	17 No.
4	Software for 3D Simulation ( latest version )	17 No.
<b>General Machinery</b>		
1a	Pentium IV Computer or latest ( Server - Linux) 2.8 GHz & above, 1GB RAM,80gGB HDD,DVD Combo Drive ,15” Monitor, optical scroll mouse, multimedia key board, 32bit LAN card with UPP port, necessary Drivers	1No
b	Pentium IV Computer or latest ( Client windows XP or higher),2.8 GHz,512 MB RAM,40/80 GB HDD, DVD Combo Drive,15”/17”Moniter, optical scroll mouse, multimedia key Board, LAN card, necessary Drivers & Antivirus software	16 No
c	Networking: Above computer systems connected in LAN	
d	Broad Band internet Connection, minimum speed 256 kbps	
2	UPS 500 VA or Centralized UPS with 5 KVA Capacity	17 or 1No
3	Desk Top Laser Printer	2 No
4	Inkjet Printer	1No
5	Scanner	1No
6	LCD Projector with Screen	1No
7	Overhead Projector with Screen	1No
<b>Workshop Furniture</b>		
1	Instructor Table and Chair	1No each
2.	Computer Table	17 nos.
3.	Revolving Chair	17 nos.
4.	White Board with Accessories	01 no.
5.	Shoe Rack	As required
6.	Locker with 8 drawers (standard size)	02 nos.
7.	Locks	16 nos.
8.	Storage Almirah	As required
9.	Book Shelf (Glass Panel)	01 no.

Upgradation of ITIs into Centre of Excellence (CoE)  
**Apparel Sector**

**For Theory Room**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Chair with armrest and writing pad	16 Nos.
2	White Board	Minimum 1 No.
3	Audio System of good sound quality OR Public Address System within the Class Room range	Minimum 1 No.
4	Overhead Projector with high quality inbuilt thermostat Condenser & Twin Lamp	Minimum 1 No.
5	Teaching Transparency OR Other Teaching Aid.	As per Requirement
6	Multimedia Projector (with all attachment)	Minimum 1 No.

**For Practical Room**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1	White Board	1 No.
2	Air Conditioner Split Type 1.5 TON	1 No.

- Neat and Clean premises duly painted.
- Cold drinking water facility should be provided.
- Classrooms and Lab facility available as per the requirement of the course.
- Proper Lighting and ventilation provided.
- Proper storage facility available to store the components, meters, etc.

"A" class electrical line laying done with proper Earthing to avoid hazards.