



**UTTARAKHAND BOARD OF TECHNICAL EDUCATION**  
**JOINT ENTRANCE EXAMINATION AND TRAINING, RESEARCH DEVELOPMENT CELL, DEHRADUN**  
**STUDY AND EVALUATION SCHEME FOR DIPLOMA PROGRAMME**

**BRANCH NAME – GARMENT TECHNOLOGY**

**SEMESTER – III**

Subject Code	Subject	L	T	P	T O T	EVALUATION SCHEME						Total Marks	Credit Point
						Internal			External				
						Theory Max Marks	Practical Max Marks	Hrs.	Theory Max Marks	Practical Max Marks	Hrs.		
113002	Garment Design - I	-	-	4	4	-	50	-	-	-	100	3.0	4
113001	CAD Studies - I	-	-	3	3	-	20	-	-	-	30	1.5	3
113005	Industrial Garment Techniques	4	-	-	4	20	-	70	2.5	-	-	-	4
113007	Textile Science - III	3	-	2	5	20	50	70	2.5	20	150	1.5	3
113006	Pattern Making - I	2	-	4	6	20	50	50	2.5	80	200	3.0	6
113004	History of Costume - I	3	-	2	5	20	20	70	2.5	40	150	2.0	3
113003	Garment Fabrication - III	-	-	5	5	-	50	-	-	100	150	3.0	5
113052	Industrial Exposure (Assessment at Inst. Level) +	-	-	4	4	-	25	-	-	-	25	-	1
013054	General Proficiency (Disc/Game/SCA/NCC/NSS) #	-	-	4	4	-	25	-	-	-	25	-	1
<b>TOTAL</b>		<b>12</b>	<b>-</b>	<b>28</b>	<b>40</b>	<b>80</b>	<b>290</b>	<b>260</b>	<b>-</b>	<b>370</b>	<b>1000</b>	<b>-</b>	<b>30</b>

# Student Centered Activities will comprise of various co-curricular activities like games, hobby clubs, seminars, declamation contests, Extension lectures, NCC, NSS and cultural activities etc.

+ Industrial visit compulsory at minimum 2 Industries or Department.

**Note:** 1- Each period will be 50 minutes. 2- Each session will be of 16 weeks. 3- Effective teaching will be at least 12.5 weeks.

**Note:** : six week project based **industrial training** as per details specified in major project syllabus, out of six weeks, **four week during vacation after fourth semester and two week craft oriented training after fifth semester** till commencement of six semester. Craft oriented training cum major project work will be evaluated in six semester by an expert/examiner from industry.

**Branch Code - 11**



**THIRD SEMESTER  
GARMENT TECHNOLOGY**



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-	-	4

**Subject Code : 113002**

## **RATIONALE**

The students should be able to design garments and accessories for different age groups, and occasions with proper selection of fabrics. After going through this subject, the student will be able to design garments appropriately to customers satisfaction and need.

## **DETAILED CONTENTS**

### **PRACTICAL EXERCISES**

**1. Designing garments for children (casual and formal and minimum one each) by using flat sketch technique**

- Frocks
- Skirts and tops
- Jump suits
- Night wears
- play time dresses
- Jackets

**2. Designing garments for young girls (age group of 18-25yrs) (using leather, textiles, knits, embroidered)**

- Casual Street Clothing
- Indian Casuals
- Indian Formals
- Western Formals
- Layered clothing(Western)
- Sari Blouses
- Fusion Clothing
- Season, colour, fabric, texture etc have to keep in mind while designing.
- Attach suitable swatches on the design sheets.

**3. Sourcing of suitable materials - The students should do a:**

**Fabric Folder -** Market survey for the fabrics, colours and textures available in the market.

**Lace Folder** - samples of basic, functional, decorative laces, ribbons etc.

**Button Folder** - Samples of basic shirt buttons, denim buttons, decorative buttons (wooden, plastic, metal, fabric etc), Fasteners(hooks, Velcro tapes etc, Trimmings & Accessories(like different types of hangings & tassels)).

**- Presentable collection of sourced material.**

### **RECOMMENDED BOOKS**

1. Design for the Real World: Human Ecology and Social Change by Papanek
2. Repeat Patterns: A Manual for Designers, Artists and Architects by Phillips and Bunce
3. Textiles Designs 200 Years of Patterns for Printed Fabrics by Meller and Elffers

<b>L</b>	<b>T</b>	<b>P</b>
-	-	<b>3</b>

**Subject Code : 113001**

**RATIONALE**

The term CAD has found its way into all major disciplines that have got anything to do with designing or drafting techniques. The objective of the subject is to expose professionals and to meet the needs of the users by complementing their knowledge, skills, ability, creativity in the field of garment technology and their application in the industry. A lot of flexibility is available with the use of different software e.g. color blending, mixing, fabric construction, figure illustration, development of the motif and prints, background treatment, presentation, special effects can be simulated and printed out with absolute accuracy.

**DETAILED CONTENTS**

**PRACTICAL EXERCISES**

**(Software: Use of Corel Draw)**

1. Study in detail the different tools of Corel Draw
2. Design a logo
3. Traditional & contemporary motif
4. Composition of lines & shapes
5. Nursery print
6. Fashion Figure( Stick, Block, Flesh)

**RECOMMENDED BOOKS**

1. Literature from the supplier of each software can be consulted
2. Corel Draw – BPB Publication

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Subject Code : 113005

## **RATIONALE**

This subject informs the students about all the techniques followed in the cutting room, i.e. spreading, cutting and marker making. After going through this subject, they will be able to plan and schedule all the operations of cutting room. The final presentation of finished product matters a lot in garment trade and hence knowledge and skill regarding this subject is essential for the students of garment technology, so that they are able to perform finishing, pressing and folding, packing and sealing processes effectively.

### **1. Spreading Techniques**

- Mode of fabric spreading
- Spreading Equipment

### **2. Marker Making: Need and Importance**

- Mode of marker making

### **3. CUTTING:**

- Cutting Plan
- Cutting Equipment
- Cutting Defects
- Preparation for sewing
- Cutting report

### **4. Stain removal methods. Chemicals used.**

### **5. Washing and dry cleaning – methods, equipment, and dry cleaning methods**

### **6. Informative Labelling – instructions and cautions**

### **7. Types, packing materials and methods, Hanger packing in wardrobe covering, transport cartons / containers, strapping methods and equipments, air worthy and sea-worthy packing, Sealing methods and cartons and bags.**

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<b>3</b>	<b>-</b>	<b>2</b>

**Subject Code : 113007**

## **RATIONALE**

The knowledge and skills related to textile science is essential to provide a comprehensive insight into the basic knowledge about fibers, yarns and relevant properties affecting the ultimate performance and use of fabrics by the consumer, hence the subject is included in the curriculum

### **1. FABRIC STRUCTURE AND PROPERTIES**

- a) Weaving fundamentals- - Type of looms – basic loom and shuttleless loom.
- b) Basic weaves
  - plain, twill, satin
  - Decorative weaves swivel, lappet, dobby, jacquard, pile
  - Weaving defects
  - Selvedge and their types: fused, topped, fringed

### **2. PRINTED TEXTILES OF INDIA**

- Sanganeri Prints, Bagroo, Tie and Dye
- Leheriya and Bandhanis
- To study in details the traditional Painted Textiles- Kalamkari

### **3. KNITTING**

- **Definition, knitting defects, types of needles used, hosiery garments, and knitting yarns**

## **PRACTICALS**

1. Prepare a catalogue of blended fabric .
2. To identify the woven fabrics for:      a) Warp and weft      b) Face and Back  
c) Prepare a point-paper diagram of basic weaves and their variations.
3. Prepare a list of fabrics under each category of weave.



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<b>2</b>	<b>-</b>	<b>4</b>

**Subject Code : 113006**

## **RATIONALE**

The students are supposed to know how to adapt basic blocks to various garment designs, and layouts and skill of draping. Thus the subject deals with variations of pattern and styling of garments. After going through this subject, the students will be able to draft various components of the garments and express design ideas by a three dimensional process of pattern making.

## **DETAILED CONTENTS**

### **THEORY**

#### **1. Preparation of fabric for cutting**

- Straightening the fabric
- Shrinking the fabric
- Ironing/pressing the fabric

#### **2. Sequence of cutting**

Laying out the pattern pieces, marking and transferring the pattern details, cutting

#### **3. Handling of special fabrics while cutting and stitching**

#### **4. Fitting**

- Principles of good fit
- Sequence of fitting
- Alterations to achieve a good fit

#### **5. Draping Terminology Introduction and demonstration of:**

- a) Equipment used
- b) Grain
- c) Seam allowances/ease
- d) Preparation of fabric
- e) Landmarks on a dress form

## **PRACTICAL EXERCISES**

1. Adaptation of adults bodice block to saree blouse
2. Adaptation of basic block into T-shirt
3. Drafting of adult's skirt block ( in two types of layout).
4. Adaptation of skirt block to various styles ( Handkerchief, Pegged & Pencil)

### **5. Adaptation of plain sleeve to the following sleeves**

- Ruffle sleeve
- Bishop sleeve
- Kimono sleeve
- Raglan sleeve
- Dolman

### **6. Drafting of the following collars**

- Chinese band (Variation)
- Stand and fall collar
- Two piece notched collar
- Revers

### **7. Built-up necklines – cowls**

### **8. Preparation of basic Patterns by draping the following:**

- a) Basic bodice – front and back
- b) Basic skirt – front and back
- c) Bodice variation – princess line, yokes with gathers/pleats and cowls

## **RECOMMENDED BOOKS**

1. Pattern Making for Fashion Design by Helen Joseph Amstrong
2. The ABC's of Grading by Murray Sacheir
3. Pattern Making for Fashion design by Amstrong
4. Basic Pattern Skills for Fashion Design by Bernard Zamkofft
5. Designing Apparel through the Flat Pattern by Ernestine Kopp

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Subject Code : 113004

## RATIONALE

The students of fashion design should be able to appreciate our ancient civilization, the fashion existing in the different periods, their contribution in shaping the present and promoting the future trends in the field of fashion.

## DETAILED CONTENTS

### 1. Origin of clothing: theories – protection, modesty, adornment

### 2. ANCIENT INDIAN CIVILIZATION

- Indus valley civilization
- Women's Costumes-dresses, jewellery, hairstyles, footwear
- Men's costumes- dresses, jewellery, hairstyles, footwear

#### 2.1Mauryan and Sunga Period

- Women's costumes-dresses, jewellery, hairstyle, footwear
- Men's costumes- dresses, jewellery, hairstyles, footwear

#### 2.2 Kushan period

- Women's costumes-dresses, jewellery, hairstyle, footwear
- Men's costumes- dresses, jewellery, hairstyles, footwear

#### 2.3 Satvahana period

- Women's costumes-dresses, jewellery, hairstyle, footwear
- Men's costumes- dresses, jewellery, hairstyles, footwear

#### 2.4 Gupta period

- Women's costumes-dresses, jewellery, hairstyle, footwear
- Men's costumes- dresses, jewellery, hairstyles, footwear

### 3. MEDIEVAL PERIOD

#### 3.1 Mughal period

- Women's costumes-dresses, jewellery, hairstyle, footwear
- Men's costumes- dresses, jewellery, hairstyles, footwear

#### **4. TRADITIONAL COSTUMES OF INDIA:**

- Types of costumes for male and female,
- Significance of culture and rituals:
- Jammu and Kashmir, Punjab, Rajasthan, UP, West Bengal, Assam, Maharashtra, Tamil Nadu.

#### **PRACTICAL EXERCISE:**

Each period has to be an inspiration for the development of at least 2 dresses (contemporary looks.)

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**Subject Code : 113003**

### **RATIONALE**

The diploma holders in garment technology are supposed to fabricate the garments for Kids; as per the layouts and specifications. Hence this subject has been included in the Curriculum in order to develop such competencies.

### **DETAILED CONTENTS**

#### **Practical Exercises**

Construction of:

1. Formal Frock (kids wear)
2. Jump suit
3. Skirt
4. Types of Salwars ( Plain, Patiala, Dhoti)
5. Churidar

#### **RECOMMENDED BOOKS**

1. Pattern Making for Fashion design by Amstrong
2. Clothing Construction by Doongaji
3. System of Cutting by Zarapkar
4. Clothing Construction by Evelyn A Mansfield, Hougutan Miffin Co., Boston
5. Creative Sewing by Allynie Bane; McGraw Hill Book Co., Inc., New York
6. How You Look and Dress by Byrta Carson; McGraw Hill Book Co., Inc., New York





## LEARNING OUTCOMES AND MEANS OF ASSESSMENT

### BRANCH NAME – GARMENT TECHNOLOGY

### SEMESTER – III

S.No.	Title of Subject/Unit	Learning Outcomes	Means of Assessment
1	GARMENT DESIGN-I	Ability to do technical drawing to customer's satisfaction	Assignments, class tests, mid term & end term etc.
2	CAD STUDIES-I	Ability to learn the tools for developing digital drawings	Assignments, class tests, mid term & end term etc., lab and practical work
3	INDUSTRIAL GARMENT TECHNIQUES	Ability to learn the skills of various techniques pertaining to production & finishing dept.	Assignments, class tests, mid term & end term etc. and presentation of file.
4	TEXTILE SCIENCE-III	Ability to use fabric oriented techniques & create designs	Assignments, class tests, mid term & end term etc. and collection of various types of materials(dyes,samples)etc.
5	PATTERN MAKING-I	Ability to create and adapt advance designs through different techniques.	Assignments based on various adaptations of patterns, class tests, mid term & end term etc.
6	HISTORY OF COSTUME-I	Ability to study history and create contemporary designs	Class tests, mid term & end term etc.,presentation of theory file.
7	GARMENT FABRICATION-III	Developing the skill of stitching and finishing a garment	Assignments based on developed garment types, class tests, mid term & end term etc



5	Garment Construction -III	to learn to fabricate the garments as per the layout and specifications, to turn the two dimensional drawing into a successful garment, to learn sewing hand sewing and machine operations.	Assignments of constructing garments of different designs for children and ladies. basic stitches and embroidery folder. Class tests, mid-terms and end-term written tests, samples and practical work, sketches, exercises and viva-voce. Report writing presentation and viva-voce.
6	Cad In Fashion - I	To expose professionals to different softwares available in the field of garment technology, to implement the cad softwares in the design and construction of garments.	Assignments and Quiz/Class tests, mid-terms and end-term written tests, models/prototype making Actual laboratory and practical work, model/prototype making, assembly and disassembly exercises and viva-voce. Software installation, Report writing presentation and viva-voce.