



**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 – IV**

Subject Code	Subject	L	T	P	T O T	EVALUATION SCHEME						Total Marks	Credit Point
						Internal		External					
						Theory Max Marks	Practical Max Marks	Theory		Practical			
								Max Marks	Hrs.	Max Marks	Hrs.		
Period/Weeks													
114002	Garment Design - II	-	-	4	4	-	50	-	-	100	3.0	150	4
114001	CAD Studies - II	-	-	3	3	-	50	-	-	50	1.5	100	3
114006	Production Machinery & Management	4	-	2	6	50	25	70	2.5	25	1.5	170	5
114003	Garment Fabrication - IV	-	-	5	5	-	100	-	-	100	3.0	200	5
114005	Pattern Making - II	-	-	6	6	-	80	-	-	100	3.0	180	6
114004	History of Costume - II	3	-	2	5	20	20	70	2.5	40	2.0	150	5
114052	Industrial Exposure (Assessment at Inst. Level) +	-	-	4	4	-	25	-	-	-	-	25	1
014054	General Proficiency (Disc/Game/SCA/NCC/NSS) #	-	-	4	4	-	25	-	-	-	-	25	1
<b>TOTAL</b>		<b>7</b>	<b>-</b>	<b>30</b>	<b>37</b>	<b>70</b>	<b>375</b>	<b>140</b>	<b>-</b>	<b>415</b>	<b>-</b>	<b>1000</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**



**FOURTH SEMESTER  
GARMENT TECHNOLOGY**

<b>L</b>	<b>T</b>	<b>P</b>
-	-	<b>4</b>

**Subject Code : 114002**

### **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 (Back ground & presentation of sheet is compulsory)
  - Executive Wear
  - Bridal Wear
  - Night wear
  - Beach wear
  - Evening Wear
  - College Wear
  - Sports Wear
  - Saree drapes
  - Suits (Designer)
  - Sports Wear
2. Advanced Photo Analysis (requiring rendering skills using other mediums)  
Portfolio collection (note: showing different effects of fabric by different colour mediums like satin , silk, net, tissue, georgette, bandhani, etc.)
  - Illustration of designs on a given theme
  - Accessories and garment sketch in detail
  - Design draped on the fashion figure in colour

#### **RECOMMENDED BOOKS**

1. Fashion Drawing Designs; Magazine of Thailand
2. Pattern Designs for Haute Couture Volume – I
3. Fashion Drawing – The Basic Principles by Anne Allen and Julion Seaman
4. Latest Fashion Style by Winter Hiver
5. Jasmine’s “New Look, On Indian Fashion Scene”
6. Lifestyles: Fashion Styles by Katheryn Samuel

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

**Subject Code : 114001**

### **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 Photoshop)**

1. Study in detail the different tools of Photoshop
2. Editing of images
3. Different textures & weaves
4. Masking
5. Conversion of Vector images into Bitmap.

#### **RECOMMENDED BOOKS**

1. Literature from the supplier of each software can be consulted
2. Adobe Photoshop - BPB Publication

<b>L</b>	<b>T</b>	<b>P</b>
<b>4</b>	<b>-</b>	<b>2</b>

**Subject Code : 114006**

## **RATIONALE**

The students are expected to know various types of machinery and equipment used in manufacturing of garments. They should be able to operate and maintain the machinery and rectify the common defects. The subject intends to develop such skills in the students.

## **PART A: PRODUCTION MACHINERY**

1. The main types of stitching machinery and their uses in garment assembly (industry setup).
2. Attachments: Tuckers, hemmer, seam, guide, binders, button hole, folders and trimmers.
3. **STITCHES: definition, properties, types & application. Elementary knowledge of following machines and their components:**
  - Lock stitch machine
  - Chain stitch machine
  - Over lock machine
  - Button hole machine
  - Zig-zag machine
  - Double needle lockstitch machine
  - Bar-tacking machine
  - Blind stitch machine
  - Flat lock machine
4. Common defects of sewing machine
5. Federal stitch standards – various stitch types as per international standards – class 100, 300, 400, 500, 600.

## **PART B: PRODUCTION MANAGEMENT**

1. Introduction to Basic Production Terms. Production, productivity, work in process, time study, motion study, work study, ergonomics

## **2. Pre-Production Planning**

- Types of production processes, job, batch and mass production
- Raw material planning and allocation
- Process planning and process sheet
- Methods of production control

## **3. Types of Production System**

- Making through garment system
- Batch system
- Assembly line system
- Progressive bundle system
- Production systems – Their advantages and disadvantages

## **PRACTICAL EXERCISES**

1. Identification of different types of stitches (file preparation)
2. Exercises on fusing and pressing of garments

<b>L</b>	<b>T</b>	<b>P</b>
-	-	<b>5</b>

**Subject Code : 114003**

### **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 women's wear:

1. Kameez
2. Kalidar Kurta
3. Four Dart Blouse
4. Choli cut blouse
5. Night wear

#### **RECOMMENDED BOOKS**

1. Pattern Making for Fashion design by Armstrong
2. Clothing Construction by Doonga ji; Raj Parkashan, Delhi
3. System of Cutting by Zarakpar
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
7. Complete Guide to Sewing by Reader's Digest

<b>L</b>	<b>T</b>	<b>P</b>
-	-	<b>6</b>

**Subject Code : 114005**

## **RATIONALE**

The students are supposed to perform the jobs of pattern maker when engaged in garment manufacturing. After going through this subject, students will be able to manipulate different darts and increase or decrease any pattern proportions

## **DETAILED CONTENTS**

### **Practical Exercises**

#### **1. Dart manipulation by:**

- Slash and spread method
- Pivot method

#### **2. Dart manipulation into:**

- Single dart series
- Two dart series
- Multiple dart series
- Single lines – princess and empire
- Yokes

#### **3. Control of fullness through**

- Pleats
- Darts
- Gathers
- Tucks
- Additional fullness

#### **4. Introduction to:**

- Track grading
- Nest grading
- Grading basic bodice block, skirt block and sleeve block



## **RECOMMENDED BOOKS**

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

<b>L</b>	<b>T</b>	<b>P</b>
<b>3</b>	<b>-</b>	<b>2</b>

**Subject Code : 114004**

### **Rationale**

The students of fashion design should appreciate fashion developments of the western civilization to draw the inference on their influence on costume of the world.

### **Detailed contents (THEORY)**

#### **1. VICTORIAN PERIOD**

- a) detailed study of dates , significant developments,
- b) women’s costumes- dresses ,jewellery, hairstyles, footwear
- c) Men costumes- dresses ,jewellery, hairstyles, footwear

#### **2. FRENCH REVOLUTION**

- a) Detailed study of dates, significant, developments
- b) Women’s costumes- dresses, jewellery hairstyles footwear
- c) costume- dresses jewellery, hairstyles, footwear.

#### **3. 20TH CENTURY FASHION**

- a) Significant development period wise-decade wise
- b) Designers – important Indian and international designers and their Contribution development of fashion industry and its role

#### **4. EGYPTIAN COSTUMES**

- a) Women’s costumes-dresses, jewellery, hairstyle, footwear
- b) Men’s costumes- dresses, jewellery, hairstyles, footwear

#### **5. GREEK COSTUMES**

- a) Women’s costumes-dresses, jewellery, hairstyle, footwear
- b) Men’s costumes- dresses, jewellery, hairstyles, footwear

#### **6. ROMAN PERIOD**

- a) Women’s costumes-dresses, jewellery, hairstyle, footwear
- b) Men’s costumes- dresses, jewellery, hairstyles, footwear

## **7. BYZANTINE PERIOD**

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

### **PRACTICAL EXERCISE:**

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

### **Recommend books**

1. 20th century fashion by peacock J
2. Fashion Memoir by Yves Saint Laurent, Pieme Berge
3. A history of Costume in the West by Boucher
4. Costume 1066-1990's by peacock
5. World costume
6. The concise history of fashion

## Trainee's Evaluation Sheet

We are always keen to receive your views on the trainee's. The feedback you give allows us to continually adapt /train our students to better suit your needs. We would appreciate it if you could spend a few minutes filling in this form before the Trainee leaves (please hand it to the trainer when you've finished).

All feedback will be treated in the strictest of confidence.

**Duration of training course:** .....

**Date of Joining:** .....

**Name of Trainee:** .....

**Department:** .....

	Poor	Average	Good	Excellent/Useful
Overall Verdict	1	2	3	4
attendance	1	2	3	4
Skill acquired	1	2	3	4
Sense of responsibility	1	2	3	4
obedience	1	2	3	4
Pace of Training	1	2	3	4
Coordinating skills	1	2	3	4
Trainee's creative input	1	2	3	4

Trainee's area of specialisation (if any) .....

Scope of improvisation (if any).....

**Date:**

**Signature**  
**of the supervisor/engineer incharge**  
**Designation**