

## **DSC-ADC-A1: Fundamentals of Apparel Design & Construction**

CREDITS: 4 (THEORY 2, PRACTICAL 2)

(Theory: 30 Periods; Practical: 60 Periods)

### **LEARNING OBJECTIVES:**

1. To familiarise the students with the terminologies and concepts related to apparel design and its construction
2. To provide the basic knowledge of the different tools and processes involved in garment design and construction
3. To familiarise the students with the concepts related to apparel finishes and quality
4. To provide an introduction to home and technical textiles

### **COURSE OUTCOMES:**

After completing this course, the learner will be able to:

1. Define basic apparel design and construction terminologies
2. Identify and describe the functions of tools used in garment design and pattern making
3. Describe the importance and types of fabric grain.
4. Explain the steps of garment construction such as the preparation of the fabrics, laying out the patterns, cutting and marking the fabrics
5. Explain different types of pattern layout on various fabrics.
6. Make different types of temporary, permanent and decorative stitches.
7. Finish plain seam using various techniques
8. Construct a flanged pillow cover and Petticoat
9. Identify and describe the types of home textiles and technical textiles

### **THEORY**

**(Credits: 2; Periods 30)**

#### **Unit I: Introduction to Apparel Design**

**10 Lectures**

#### **Unit Description:**

This unit introduces the students to common terminologies and concepts associated with garment design. It also deals with the aspects and factors affecting garment design and the type of trimmings that would add to the aesthetic aspects of the design.

#### **Sub Topics:**

1. Common terms: Apparel, Seam, Seam Finish, Seam allowance, Basic Blocks, Pattern, Grading, Stay stitching, Facing, Binding, Hem, Yoke, Gusset, Nap, Darts, Pleats, Tucks, Gathers
2. Garment Design: Aspects (Function, Structure, Decoration) and types (Structural and Applied/Decorative), Application of structural and decorative design in a garment
3. Trimmings – Types, selection and application of trimmings on apparels.
4. Garment designing according to age, climate, occasion, occupation

## **Unit II: Basics of Apparel Construction**

**10 Lectures**

### **Unit Description:**

This unit provides the basic knowledge of the tools and steps associated with apparel construction.

### **Sub Topics:**

1. Fabric grain – types, identification and importance in apparel construction
2. Common tools and equipment required for measuring, drafting, pinning, marking, cutting, sewing, pressing
3. Preparation of fabrics for clothing construction- Pre-shrinking, Grain straightening, truing
4. Steps in Clothing Construction – Pattern layout, pinning, marking, cutting and sewing
5. Pattern Layout - general guidelines, basic layouts- lengthwise, partial lengthwise, crosswise, double fold, open, combination fold

## **Unit III: Application of Textiles and Garment Quality**

**10 Lectures**

### **Unit Description:**

This unit familiarises the students of the Application of textiles as apparel, at home and in the industry. It also introduces the students to the concept of readymade garment quality and the criteria for quality evaluation.

### **Sub Topics:**

1. Apparel/Garment Classification
2. Home Textiles – Categories, Standard Sizes and Fabrics used for Towels, Bed Linen
3. Technical Textiles – Medical textiles, Protective textiles, Sports textiles, Smart textiles
4. Garment Labels: Types and importance of labels with special reference to care labels
5. Evaluating the quality of readymade garments: overall appearance, fabric, fit, workmanship, finishing, price
6. Project work: Evaluation of Readymade garment Quality.

### **PRACTICAL (Credit: 2; Periods 60)**

1. Hand Stitches
  - Temporary hand stitches - even, uneven, pin, machine, diagonal basting, thread mark
  - Permanent hand stitches - hemming, blind hemming, back stitch, fine stitch
  - Decorative hand stitches – stem, chain, herringbone, running, lazy-daisy, satin
  - Fastener attachment – Button and buttonhole, Hook and eye, Press Button
2. Child's basic bodice and basic sleeve block.
3. Adaptation of child's basic sleeve to flared, puffed sleeve
4. Introduction to sewing machine - Practice of running the sewing machine on paper and fabric on straight lines, curved lines and corners.
5. Plain seam and seam finishes - Pinking, Turned and Stitched, Edge stitched, hand overcast, over-locked, Piped/Bound
6. Samples of pleats, tucks, gathers
7. Construction of a flanged pillow cover, petticoat
8. Analysis of the use of structural and Decorative designs in garments.

### **ESSENTIAL READINGS**

- Colton V. (1995). Reader's Digest- Complete Guide to Sewing. New York: The Reader's Digest Association, Inc.
- Brown, P. and Rice, J. 1998, Ready-to-wear Apparel Analysis, Prentice Hall, Frings G. (1996). Fashion-From Concept to Consumer (5th Edition). USA: Prentice Hall Publications
- Kallal, M. J., 1985, Clothing Construction, Macmillan Publishing Company, New York,
- Marshall S G, et al. (2009). Individuality in Clothing & Personal Appearance (6th Edition). USA: Pearson Education,
- Vanderhoff M., Franck L., Campbell L., (1985). Textiles for Homes and People. Massachusetts: Ginn and Company.

### **SUGGESTED READINGS**

- Cunningham G. (1976). Singer Sewing Book. New York: The Singer Company.
- Gayatri V. (2007). Cutting and Stitching Practical. New Delhi: Asian Publishers.
- Stamper, A.A., S. H. Sharp and L.B. Donnell, 1986, Evaluating Apparel Quality, Fairchild Publications, America
- Verma P. (2003). Vastra Vigyan Evam Paridhan. Bhopal: Hindi Granth Academy.