

**DIPLOMA (FASHION TECHNOLOGY) – PART FOUR**

<b>PART FOUR</b>			
<b>S. No.</b>	<b>Name of Module</b>	<b>Credits</b>	<b>Total Marks</b>
1	Pattern Cutting Techniques and Processes	5	100
2	Digital Media in Art and Design	5	100
3	Hand and Machine Sewing Techniques and Processes	5	100
4	Knitting Technology	4	100
5	Computer Aided Design	3	100
<b>Total</b>		<b>22</b>	

**Module Name: PATTERN CUTTING TECHNIQUES AND PROCESSES**

**UNIT 1: Be able to record visual references relating to pattern cutting using technical terminology**

*Visually record garments:* collected materials eg cuttings, web-based, samples (pockets, collars, zips, cuffs), sketches, skirts (A-line, flared, pleated panelled), trousers (low rise, flares, boot cut, jeans, shorts), dresses, jackets (formal, casual, tailored), shirts, blouses, t-shirts, coats, swimwear, underwear.

*Visually record details:* necklines eg V-neck, boat, square, sweetheart, round; collars eg flat, shirt, sailor, ruffled, granddad; pockets eg jetted, safari, bellows, patch, set-in, piped, flap; manipulations eg pleats, tucks, ruching, elastication, smocking; sleeves eg cap, raglan, set-in, two piece, puffed; collars eg flat, shirt, sailor, stand, rever.

*Terminology:* basic blocks eg full size, to scale, ready-made, drafting, sizing, standard, non-construction lines; seam allowance eg darts, notches, construction lines, grain lines, balance marks

*Fashion contexts:* different methods eg for mass market, high street, designer couture

**UNIT 2: Be able to explore and apply pattern cutting techniques and processes**

*Pattern-cutting materials:* eg metre stick, graders square, tracing wheel, scissors, shears, computer applications; drawing equipment; drawing materials; pattern paper

*Pattern cutting process:* understand how basic blocks are used eg skirt, bodice, sleeve, dress, trousers, jacket, coat; accuracy eg of measurement, marking up, allowances.

*Construction information:* eg seam allowance, balance marks, notches, grain lines, cutting instructions, dart manipulation; introducing fullness eg pleats, tucks, gathers, yokes, fastenings, openings

### **UNIT 3: Be able to develop own designs into finished patterns**

*Adaptations:* style; size; figure measurements; alterations to fit; full size; to scale Design features: skirts eg gored, pencil, A-line; pleats eg box, inverted, knife; neck lines; collars; facings; sleeves eg set in sleeves, raglan, kimono, dolman, dropped shoulder; cuffs; pockets eg welt, patch, flap, inserted; seam lines eg princess line, empire line; waistlines; waistbands; fastenings; trousers eg wide leg, slim leg, boot cut, cropped, Capri; jackets eg swing back, box, fitted, bomber, hooded

*Interpretation:* adapting own designs eg openings, fastenings, back views, economy of fabric, characteristics of fabric; suitability of fabric, colour, style, trimmings, finishes

*Finished pattern:* adapting; manipulating; basic block; design requirements; correct fit; relevant information eg seam allowance, notches, darts, grain lines and cutting instructions; store patterns; label patterns

*Recording information:* pattern notation eg design description, style number, named pattern pieces, number to cut, cutting instructions, collection notes

#### **Recommended Readings:**

1. Aldrich W — Fabric, Form and Flat Pattern Cutting (Wiley Blackwell, 2007) ISBN 978-1405136204
2. Aldrich W — Metric Pattern Cutting for Women's Wear (Wiley Blackwell, 2008) ISBN 978-1405175678
3. Armstrong H — Patternmaking for Fashion Design (Pearson, 2005) ISBN 978-0132003292
4. Ireland P J — New Encyclopaedia of Fashion Details (Batsford, 1998) ISBN 978-1906388065
5. Jenkyn Jones S — Fashion Design (Portfolio Series) (Laurence King, 2005) ISBN 978-1856692458

### **Module Name: DIGITAL MEDIA IN ART AND DESIGN**

#### **UNIT 1: Be able to explore the use of digital media in art and design**

*Digital media:* eg computers, cameras, still imagery, moving image, software, scanners, mobile phones

*Uses:* eg advertising, film, special effects, animation, CGI, design development, textiles, fashion, illustration, 3D design, visualisation, presentation, information graphics, entertainment

*Examples:* eg downloads, printout, references, web addresses, sketches, notes, photographs

## **UNIT 2: Be able to prepare source materials for use with digital media**

*Primary sources:* own work eg observational sketches, drawings, paintings, notes, own photographs, found objects and materials, natural, manufactured, video, audio recordings

*Secondary sources:* others' work eg photographs, printed material, photocopies, video, audio recordings

*Prepare:* eg select, organise, download, capture, name files, use hardware, software

## **UNIT 3: Be able to investigate hardware and software applications to develop image manipulation techniques**

*Inputting:* source materials; using digital technology eg cut and paste, scanners, memory cards, mobile phones, cameras, inserting images, laser printers

*Hardware and software:* file storage; hard drives eg internal, external, CD ROM, DVD, memory cards; manipulation eg typography, font size, type, colour, image; creation; importing eg drawing, paint programmes, filters, special effects

*Creating documents:* eg page layout, leaflets, flyers, cards, posters, web pages, presentations

## **UNIT 4: Be able to discuss own work**

*Own work:* eg sketchbook annotations, written notes, verbal feedback, tape or video recordings, witness statements, illustrated oral presentations, outcomes

*Discuss:* eg strengths, weaknesses, choices made, ideas development, recognising potential, considering alternatives, other ideas, improvements, future work

### **Recommended Readings:**

1. Bowles M and Isaac C — Digital Textile Design (Laurence king, 2009) ISBN 978-1856695862
2. Caplin S — Art and Design in Photoshop (Focal Press; Pap/Cdr edition, 2008) ISBN 978-024081109
3. McKernan B and Rice J — Creating Digital Content: A Video Production Guide for Web, Broadcast and Cinema (McGraw-Hill Inc, 2001) ISBN 978-0071377447
4. McNeil P — The Web Designer's Idea Book: The Ultimate Guide To Themes, Trends & Styles In Website Design (How Books, 2008) ISBN: 978-1600610646
5. Orwig C — Adobe Photoshop CS4 HOW-TOs (Adobe; 1 edition 2008) ISBN 978-0321577825
6. Paul C — Digital Art (Thames and Hudson, 2008) ISBN 978-0500203989
7. Vaughan T — Multimedia: Making it Work: Seventh Edition (McGraw-Hill Osborne 2007) ISBN 978-0072264517

**Module Name:** HAND AND MACHINE SEWING TECHNIQUES AND PROCESSES

**UNIT 1: Be able to record visual references to hand and machine sewing techniques**

*Sewing techniques and processes:* functions; creative uses; visual references; fashion detailing; decoration; construction

*Visually record, identify and reference:* designer clothing (historical, contemporary) eg garment seams, detailing, decoration, trimmings, finishes, fastenings

*Primary sources:* drawings; photographs; personal wardrobe; fashion retail outlets; museum costume collections; art galleries (portraiture); fashion exhibitions; catwalk shows; high-street

*Secondary sources:* eg books, fashion magazines, fashion catalogues, fashion pattern books, fashion photographs, postcards, illustration plates, internet, film

**UNIT 2: Be able to explore hand and machine sewing materials, equipment, techniques and processes**

*Explore and develop:* eg vocabulary (materials, equipment, techniques); basic skills (hand and machine sewing); material effects; construction; decoration  
*Material sources:* fibres (natural, synthetic); fabrics eg woven, non-woven, knitted, stretch jersey, cotton drill, tweed, chiffon, mesh, net and lace fabrics, leather, suede, fur, felt, rubber, plastic

*Technical equipment:* hand sewing; embroidery tools eg tape measure, fabric snips, fabric shears, pinking shears, tailor's chalk; domestic sewing machines; attachments eg straight stitch, swing needle, decorative stitch, overlocker, buttonholer; steam pressing equipment eg irons, pressing cloth

*Hand sewing techniques:* needle threading; starting and finishing techniques; correct holding; working with materials eg sewing direction, permanent and tacking straight stitches, gathering, basting, tailor tacking, edge stitching, hemming; decorative stitches, applying buttons, snap fasteners, hooks and eyes, trimmings

*Machine sewing techniques:* set up; storage; fabric (needles, threads, appropriate selection); threading eg bobbin filling, bobbin tension, selecting, correcting tension; selecting stitch styles eg length, width, straight stitching, decorative stitching, reverse stitching, edge and top stitching, pin tucking, basting, gathering, buttonholing; seam finishing techniques eg piping; patchwork; appliqué; quilting; applying (trimmings, beads, sequins)

*Processes:* hand; machine sewing; sample construction, techniques (decorative, finishing) clothing production eg seams (flat, lap, fell, French, bound), hems, edging, seam finishing (including overlocking), binding, piping, top stitching, basting, gathering, shirring, pin tucking, pleating, applique, quilting, attaching fastenings, buttonholing, adding functional and decorative trimmings

### **UNIT 3: Be able to use hand and machine sewing skills to develop ideas**

*Hand and machine sewing skills:* produce samples eg construction, joining stitches, seam finishing techniques, functional and decorative details and fastenings

*Develop ideas:* eg experiment with materials, threads and trimmings; combine (colours, textures, patterns); selections; specific fabrics eg for particular theme, style of clothing

*Working environment and practices:* involves the elimination of risk to self and others; thinking and working safely within a studio environment; following appropriate legal health and safety guidance on using materials and equipment

### **UNIT 4: Be able to present and comment on own sewing work**

*Presentation:* eg use of terminology, verbal commentary, technical sewing file, initial ideas to finished samples

*Review and comment:* eg discuss, select, review, reject, redo, re-present

#### **Recommended Readings:**

1. Ball W M — Basic Needlework (Pearson Education Ltd, 1979) ISBN 978-0582330672
2. Beaney J — Stitches: New Approaches (Anova Books, 2004) ISBN 978-0713488876
3. Campbell Harding V — Machine Embroidery Stitch Techniques (BT Batsford Ltd, 2003) ISBN 978-0713486018
4. Ireland P J — Encyclopaedia of Fashion Details (Anova Books, 1989) ISBN 978-0713464337
5. Littlejohn J and Beaney J — Stitch Magic (Anova Books, 2005) ISBN 978-07134896006
6. Quinn B — Techno Fashion (Berg Publishers, 2002) ISBN 978-1859736203
7. Shaeffer C — Sewing for the Apparel Industry (Pearson Higher Education, USA, 2000) ISBN 978-0130270740
8. Wolff C — The Art of Manipulating Fabrics (F&W Publications, 1996) ISBN 978-0801984969

#### **Module Name:** KNITTING TECHNOLOGY

### **UNIT 1: Introduction to Knitting**

Define Knitting Stitches, Courses and Wales , Yarn Quality requirement for Knitting, Knitting yarn properties, Define Knitting, Compare between Knitting and Weaving, classification of Knitting

### **UNIT 2: Weft Knitting**

Classification of weft knitting machine, Knitting elements- Needles, sinker, cam etc., Classification of Weft Knit structure, Characteristics of Plain, Rib, Interlock and Purl Knit Structures. Fundamentals of formation of knit, tuck and float stitches, Passage of material of Single jersey and Double jersey Weft knitting Machine.

### **UNIT 3: Warp Knitting**

Define Warp knitting, Compare of weft knitting & warp knitting, Classification of Warp Knitting Machines, differentiate warp knitting machine- Tricot and Raschel. Closed Lap and Open lap stitches. Under lap & Overlap stitches

### **UNIT 4: Flat Knitting**

Basic principles and elements of flat knitting machines. Difference types of flat knitting machines- mechanical and computer controlled machines. Machinery construction & arrangement of needles, cams and yarn cam in Rib flat (V-bed) knitting machine

### **UNIT 5: Quality Control in Fabrics**

Defects in Weft, warp knitted fabrics-its causes and remedies. Test for weft & warp knit quality. Calculations for warp knitting and weft knitting. Effect of loop length and shape on fabric properties.

#### **Recommended Readings:**

1. Knitting Technology by Manmeet Sodhia. Ludhiana, Kalyani
2. Knitting Technology by Prof. D.B. Ajgaonkar
3. Knitting Technology by David J. Spencer Woodhead
4. Fundamental & Advances in Knitting Technology by Sadhan Chandra Ray Woodhead
5. Knitting & Apparel Technology By K. Sukumar SSMITT

#### **Module Name: COMPUTER AIDED DESIGN**

#### **List of Experiments:**

1. Create a Project Report for starting a new Boutique using Ms Word.
2. Perform Calculation and create relevant chart & insert in the Project Report Created.
3. Prepare a PowerPoint presentation based on the Project Report.
4. Draw free Hand Sketches & Draw Embroidery Designs.
5. Draw Striped/ Checked Fabric Design & Compose various Geometrical designs.
6. Enlarge the design to double size. Compose all over designing sari borders & decorative shapes.
7. Practice of Color, Color Scheme, Prong Color Chart.
8. Rendering of Jewellery; necklace, ears ring, nose ring, sun glasses; Sketching hats; purse, bags, belts, shoes, Detailing for other fashion accessories.
9. Inspirations from nature, seasons, objects, fabrics, toys, signs and symbols, surroundings, etc. Inspirational Designing, Research Board, Presentation Skills: Collage, Collage on Dress and

Collage on Background, Theme Board: Story Board, Mood Board, Swatch Board, Client Board.  
Creating Lines.

10. Practicing of Drafting Pattern- Children, Boys Top, Boys Bottom, Girls Garment, Ladies Garment, Gents Shirt, Gents Full Pant Garment