

**STATE BOARD OF TECHNICAL EDUCATION, BIHAR**  
**Scheme of Teaching and Examinations for**  
**III<sup>RD</sup> SEMESTER DIPLOMA IN FASHION AND CLOTHING TECHNOLOGY**  
**(Effective from Session 2022-23 Batch)**

**THEORY**

| Sr. No.        | SUBJECTS                             | SUBJECT CODE | TEACHING SCHEME | EXAMINATION – SCHEME |                |                                     |                          |                                    |                     |                | Credits   |
|----------------|--------------------------------------|--------------|-----------------|----------------------|----------------|-------------------------------------|--------------------------|------------------------------------|---------------------|----------------|-----------|
|                |                                      |              |                 | Periods per Week     | Hours of Exam. | Teacher's Assessment (TA) Marks (A) | Class Test(CT) Marks (B) | End Semester Exam. (ESE) Marks (C) | Total Marks (A+B+C) | Pass Marks ESE |           |
| 1.             | Basics of Textile Manufacture        | 2051301      | 03              | 03                   | 10             | 20                                  | 70                       | 100                                | 28                  | 40             | 03        |
| 2.             | Basics of Fashion and Apparel        | 2051302      | 03              | 03                   | 10             | 20                                  | 70                       | 100                                | 28                  | 40             | 03        |
| 3.             | Principles of Textile Fashion Design | 2051303      | 03              | 03                   | 10             | 20                                  | 70                       | 100                                | 28                  | 40             | 03        |
| 4.             | Pattern Making                       | 2051304      | 03              | 03                   | 10             | 20                                  | 70                       | 100                                | 28                  | 40             | 03        |
| 5.             | Indian and World Costumes            | 2051305      | 03              | 03                   | 10             | 20                                  | 70                       | 100                                | 28                  | 40             | 03        |
| <b>Total:-</b> |                                      |              | <b>15</b>       |                      |                |                                     | <b>350</b>               | <b>500</b>                         |                     |                | <b>15</b> |

**PRACTICAL**

| Sr. No.        | SUBJECTS                       | SUBJECT CODE | TEACHING SCHEME | EXAMINATION – SCHEME |                |               |                |             | Credits   |                           |
|----------------|--------------------------------|--------------|-----------------|----------------------|----------------|---------------|----------------|-------------|-----------|---------------------------|
|                |                                |              |                 | Periods per Week     | Hours of Exam. | Practical     |                | Total Marks |           | Pass Marks in the Subject |
|                |                                |              |                 |                      |                | Internal (PA) | External (ESE) |             |           |                           |
| 6.             | Pattern Making Lab             | 2051306      | 04              | 03                   | 15             | 35            | 50             | 20          | 02        |                           |
| 7.             | Textile and Fashion Design Lab | 2051307      | 04              | 03                   | 15             | 35            | 50             | 20          | 02        |                           |
| 8.             | Embroidery Lab.                | 2051308      | 02              | 03                   | 07             | 18            | 25             | 10          | 01        |                           |
| 9.             | Surface Ornamentation Lab.     | 2051309      | 02              | 03                   | 07             | 18            | 25             | 10          | 01        |                           |
| <b>Total:-</b> |                                |              |                 |                      |                |               | <b>12</b>      | <b>150</b>  | <b>06</b> |                           |

**TERM WORK**

| Sr. No.   | SUBJECTS                   | SUBJECT CODE | TEACHING SCHEME | EXAMINATION – SCHEME |                                 |                                  |             | Credits                  |                           |
|---|----------------------------|--------------|-----------------|----------------------|---------------------------------|----------------------------------|-------------|--------------------------|---------------------------|
|   |                            |              |                 | Periods per week     | Marks of Internal Examiner (PA) | Marks of External Examiner (ESE) | Total Marks |                          | Pass Marks in the Subject |
| 10.   | Python/Others (TW)         | 2000310      | 02              | 07                   | 18                              | 25                               | 10          | 01                       |                           |
| 11.   | Textile Manufacturing (TW) | 2051311      | 02              | 07                   | 18                              | 25                               | 10          | 01                       |                           |
| 12.   | Fashion Sketching (TW)     | 2051312      | 02              | 15                   | 35                              | 50                               | 20          | 01                       |                           |
| <b>Total:-</b>                                      |                            |              |                 |                      |                                 |                                  | <b>06</b>   | <b>100</b>               |                           |
| Total Periods per week Each of duration one Hours = |                            |              |                 |                      |                                 |                                  | <b>33</b>   | <b>Total Marks = 750</b> | <b>24</b>                 |

# BASICS OF TEXTILE MANUFACTURE

|                                 |                                |          |            |   |          |           |                            |
|---------------------------------|--------------------------------|----------|------------|---|----------|-----------|----------------------------|
| <b>Subject Code<br/>2051301</b> | <b>Theory</b>                  |          |            | <b>No of Period in one session : 42</b> |          |           | <b>Credits<br/><br/>03</b> |
|                                 | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                            |
|                                 | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>ESE</b>                              | <b>:</b> | <b>70</b> |                            |
|                                 | <b>03</b>                      | —        | —          | <b>TA</b>                               | <b>:</b> | <b>10</b> |                            |
|                                 |                                |          |            | <b>CT</b>                               | <b>:</b> | <b>20</b> |                            |

**Rationale:** Textile has evolved from the basic need of mankind i.e. clothing. Knowledge about raw material is very important in area of Fashion Design and Clothing Technology. A fashion technologist should have a basic knowledge about fibre, yarn and fabric. Students of diploma course must know the process sequence in spinning and weaving departments of textile manufacturing. They should be aware of the various quality and process parameters and also be able to produce quality fabric. This course aims at development of relevant competency in the area of textile manufacturing.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

**\* Apply principles of yarn and fabric manufacturing process to produce plain woven fabric.**

## Course Outcomes (COs):

The theory, practical experiences and relevant soft skills associated with this course are to be taught and implemented, so that the student demonstrates the following industry oriented COs associated with the above-mentioned competency:

1. Use the raw material and basic principles of pre-opening when producing yarns.
2. Apply the principles of spinning when producing yarns.
3. Use the yarn numbering system to estimate the yarn size.
4. Select relevant preparatory process for producing fabric.
5. Apply the principle of interlacement when producing plain woven fabric.

| UNIT          | CONTENTS (Theory)  | Hrs | Marks |
|---------------|--|-----|-------|
| <b>Unit-1</b> | <b>Raw Material:</b><br>1.1 Definition of Textile fibers, Staple, filament, Yarn.<br>1.2 Properties of textile fibres – essential & desirable.<br>1.3 Classification of textile fibres based on their origin.<br>1.4 Brief information of fibres : Cotton, wool, silk, jute, viscose, polyester, nylon, acrylic.   | 05  | 10    |
| <b>Unit-2</b> | <b>Preopening:</b><br>2.1 Ginning process & its objects.<br>2.2 Brief study of baling & pressing.<br>2.3 Introduction to spinning, A flow chart for carded, combed and doubled yarn,<br>2.4 Difference between carded & combed yarn.   | 04  | 08    |
| <b>Unit-3</b> | <b>Yarn Spinning:</b><br>3.1 Purpose of Blow room, Carding, Draw-frame, Sliver lap and Ribbon lap, Comber, Speed frame and ring frame.<br>3.2 Classification of yarns: Single yarn, double yarn, staple yarn, hosiery yarn, open end yarn, ring yarn, air jet yarn, dref yarn.<br>3.3 Yarn Parameter: strength, elongation, maturity, yarn count, hairiness, evenness.   | 10  | 14    |
| <b>Unit-4</b> | <b>Yarn Numbering System:</b><br>4.1 Yarn numbering system: Indirect numbering systems – Number English, Metric, Woolen, worsted, linen, French.<br>4.2 Simple calculation based on different yarn numbering system.<br>4.3 Resultant yarn count and related calculation.<br>4.4 Yarn specification- Linear density, Practical difficulties in measuring the yarn diameter. Count, Tex, Denier.  | 10  | 12    |
| <b>Unit-5</b> | <b>Preparatory Elements of Weaving:</b><br>5.1 Introduction to Fabric Manufacturing, Fabric: Warp, weft.<br>5.2 Objects: winding, warping, sizing, drawing-in, cone dyeing, beam dyeing, pirn winding, weaving.<br>5.3 Process flow charts: (a) Grey fabric (b) Mono colour fabric (dyed warp and grey weft) (c) warp or weft stripes (d) pattern, (e) warp and weft both coloured.<br>5.4 Classification of looms.<br>5.5 Methods to produce fabric: Weaving, knitting, braiding, felting, non-woven. | 10  | 14    |

|               |   |           |           |
|---------------|---|-----------|-----------|
| <b>Unit-6</b> | <b>Principles of Weaving:</b><br>6.1 Types of winding, winding package, cone, cheese, its specification, requirement of package for cone dyeing, types of cone available to wind package for dyeing.<br>6.2 Classimat chart<br>6.3 Warping: Objects, passage of warp through the machine, types of warping, creel capacity and its effects, Quality requirement of warping beam, beam defects, requirement of package for beam dyeing.<br>6.4 Sizing: Importance, passage of warp, stretch, size pick up and size add-on, specification of sized beam.<br>6.5 Drawing-in: objects, draft, drawing-in order, reed.<br>6.6 Elements of fabric, EPI, PPI, cover factor, GSM, crimp percentage, interlacement, selvedge type.<br>6.7 Shedding: objects, plain, dobby, jacquard. Picking: shuttle, projectile, rapier, air jet. Beat-up: objective. Take-up and Let-off.<br>6.8 Fabric inspection, Defects, grading system, cut looking. | 14        | 22        |
|               | <b>Total</b>  | <b>42</b> | <b>70</b> |

### CO PO MAPPING:

| Course code.CO number      | CO Statement   | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PSO1 | PSO2 |
|----------------------------|--|-----|-----|-----|-----|-----|-----|-----|------|------|
| <b>C22...301.1</b>         | Use the raw material and basic principles of pre-opening when producing yarns. |     |     |     |     |     |     |     |      |      |
| <b>C22...301.2</b>         | Apply the principles of spinning when producing yarns.                         |     |     |     |     |     |     |     |      |      |
| <b>C22...301.3</b>         | Use the yarn numbering system to estimate the yarn size.                       |     |     |     |     |     |     |     |      |      |
| <b>C22...301.4</b>         | Select relevant preparatory process for producing fabric.                      |     |     |     |     |     |     |     |      |      |
| <b>C22...301.5</b>         | Apply the principle of interlacement when producing plain woven fabric.        |     |     |     |     |     |     |     |      |      |
| <b>C22...301 (Average)</b> |  |     |     |     |     |     |     |     |      |      |

Enter correlation levels 1, 2 or 3 as :

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High) If there is no correlation, Then put “-”

### List of Recommended Books / Reference

| S. No. | Title of Books                                      | Author              | Publication                                 |
|--------|---|---------------------|---|
| 1      | Technology of short- staple spinning – Vol I to IV. | W. Klein,           | Textile institute pub, Manchester           |
| 2      | Spinning  | Lord, P.R.          | Woodhead Publication                        |
| 3      | Spun yarn Technology                                | Eric Ostoby,        | Butter worths Londen                        |
| 4      | Spinning of Manmades and Blends on Cotton Spinning. | K.R. Salhotra       | The Textile Association of India            |
| 5      | Weaving: Conversion of yarn to fabric               | Lord, P.R.          | Woodhead Publication                        |
| 6      | Principle of Weaving                                | Marks and Robinsons | Woodhead Publication, The Textile Institute |
| 7      | Weaving: Machines, Mechanisms and Management        | Talukdar M.K        | Mahajan Publishers pvt. Ltd., Ahmedabad,    |
| 8      | Modern Preparation and Weaving Technology           | Ormerod A           | Butter worths Londen                        |
| 9      | Elements of Raw Cotton and Blow Room                | Khare A.R.          | Sai Book Centre                             |
| 10     | Cotton spinning calculations                        | T.K. Pattabhiram,   | Soumya pub. Bombay                          |

## BASICS OF FASHION AND APPAREL

|                                 |                                |          |            |   |           |           |                            |
|---------------------------------|--------------------------------|----------|------------|---|-----------|-----------|----------------------------|
| <b>Subject Code<br/>2051302</b> | <b>Theory</b>                  |          |            | <b>No of Period in one session : 42</b> |           |           | <b>Credits<br/><br/>03</b> |
|                                 | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |           |           |                            |
|                                 | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>ESE</b>                              | <b>:</b>  | <b>70</b> |                            |
|                                 | <b>03</b>                      | —        | —          | <b>TA</b>                               | <b>:</b>  | <b>10</b> |                            |
|                                 |                                |          | <b>CT</b>  | <b>:</b>                                | <b>20</b> |           |                            |

**Rationale:** Basics of Clothing Technology are the language of fashion technologist. The concepts of fashion and clothing are used in expressing the ideas, conveying the instructions that are used in carrying out the jobs on the shop floor, industries, assembly units, designing units, etc. This course covers the knowledge and application of fashion and clothing concepts and finally enables him to use these concepts in different departments of fashion and clothing industry. The curriculum aims at developing the ability to identify the various clothing styles and use them in further adaptations or styles he is aiming to design. The subject focuses on developing imagination and translating ideas into sketches, it also helps to develop the idea of visualizing the actual object or part on the basis of drawings. This preliminary course aims at building a foundation for the further courses related to fashion and clothing technology and other allied courses in coming semesters.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

**\* Interpret the basic concepts from fashion and apparel industry.**

### Course Outcomes (COs):

The theory, practical experiences and relevant soft skills associated with this course are to be taught and implemented, so that the student demonstrates the following industry oriented COs associated with the above-mentioned competency:

1. Apply the concept of fashion and clothing to given design / production related situation.
2. Identify designs relating to fashion theories.
3. Classify the given garments on basis of clothing and fashion terminologies.
4. Compare / correlate the types of market and fashion theories.
5. Identify the process sequence of the garment industry.

| UNIT          | CONTENTS (Theory)   | Hrs | Marks |
|---------------|---|-----|-------|
| <b>Unit-1</b> | <b>Concept of Clothing and Fashion:</b><br>1.1. Introduction to clothing concept. Definition of Clothing.<br>1.2. Introduction to clothing technology, objectives of clothing technology.<br>1.3. Introduction to fashion concept, Definition of Fashion.<br>1.4. Introduction to fashion technology, objectives of fashion technology.   | 04  | 10    |
| <b>Unit-2</b> | <b>Fundamentals of Fashion:</b><br>2.1. Fashion cycle<br>2.2. Fashion theories – trickle up, trickle down and trickle across.<br>2.3. Comparison of fashion theories.<br>2.4. Fashion terminology: boutique, brand, collection, couture house, designer label, prêt-a-porter, silhouette, custom made, domestic market, fashion innovator, franchise, ethnic, haute couture, high fashion, knock offs, wardrobe, fashion year, fashion season, fashion followers, fashion forecast.   | 12  | 18    |
| <b>Unit-3</b> | <b>Apparel Terminologies:</b><br>3.1. Apparel categories of Men's wear, shirts, polos, t-shirts, tanks, jeans, pants, joggers, shorts, bell-bottom, sweatshirts, hoodies.<br>3.2. Apparel categories of Women's wear: Blouses, coats, jackets, Kurti, hatler top, tank top, tunics, crop tops, leggings, jeans, shorts, capris, trousers, palazzos, salwar, herum, gaggies, hipster, circular skirt, wrap around skirts, gored skirt, trumpet, jumpsuit, evening gowns.<br>3.3. Apparel categories of Kids wear: Romper, dungarees, sleep suit, pinafore.<br>3.4. Apparel categories of Inner wear: Lingerie. | 06  | 10    |
| <b>Unit-4</b> | <b>Overview of Fashion Market</b><br>4.1. Haute couture/ bespoke clothing and its importance.<br>4.2. Pret-a-porter and its importance<br>4.3. Mass production and its importance<br>4.4. Boutique and its importance   | 06  | 10    |

|               |  |           |           |
|---------------|--|-----------|-----------|
| <b>Unit-5</b> | <b>Organizing the Apparel Production Process</b><br>5.1. Organizational structure of garment industry<br>5.2. Pre-adoption steps: Line planning and consumer research, concept development, quick costing, pattern development, preparing samples for various purpose, Line reviews – check on check.<br>5.3. Post-adoption steps: Styling and fit perfection, Creation of production pattern, Gradation, Production marker development, Final costing, Ware housing.<br>5.4. Merchandising – role of merchandisers. | 14        | 22        |
|               | <b>Total</b>   | <b>42</b> | <b>70</b> |

### CO PO MAPPING:

| Course code.CO number      | CO Statement  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PSO1 | PSO2 |
|----------------------------|---|-----|-----|-----|-----|-----|-----|-----|------|------|
| <b>C22...302.1</b>         | Apply the concept of fashion and clothing to given design / production related situation. |     |     |     |     |     |     |     |      |      |
| <b>C22...302.2</b>         | Identify designs relating to fashion theories.  |     |     |     |     |     |     |     |      |      |
| <b>C22...302.3</b>         | Classify the given garments on basis of clothing and fashion terminologies.               |     |     |     |     |     |     |     |      |      |
| <b>C22...302.4</b>         | Compare / correlate the types of market and fashion theories.                             |     |     |     |     |     |     |     |      |      |
| <b>C22...302.5</b>         | Identify the process sequence of the garment industry.                                    |     |     |     |     |     |     |     |      |      |
| <b>C22...302 (Average)</b> |   |     |     |     |     |     |     |     |      |      |

Enter correlation levels 1, 2 or 3 as :

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High) If there is no correlation, Then put “-”

### List of Recommended Books / Reference

| S. No. | Title of Books                                 | Author             | Publication   |
|--------|--|--------------------|---|
| 1      | Elements of fashion and design                 | Gertrud Lehnert    | West Duxbury Manchesters. 1995                                    |
| 2      | Inside the fashion business                    | Dickerson Kitty G. | Pearson Education Pvt. Ltd., Singapore, 2004. ISBN: 9780130108555 |
| 3      | Fashion from Ancient Egypt to the present day  | Mila Contini       | West Duxbury, Manchester, ISBN No. 9780517099872                  |
| 4      | History of fashion in 20 <sup>th</sup> Century | Gertrud Lehnert    | West Duxbury, Manchester, ISBN No. 9783829020336                  |

# PRINCIPLES OF TEXTILES AND FASHION DESIGN

|                                       |                                |          |            |   |          |           |                                 |
|---------------------------------------|--------------------------------|----------|------------|---|----------|-----------|---------------------------------|
| <b>Subject Code</b><br><b>2051303</b> | <b>Theory</b>                  |          |            | <b>No of Period in one session : 42</b> |          |           | <b>Credits</b><br><br><b>03</b> |
|                                       | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                                 |
|                                       | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>ESE</b>                              | <b>:</b> | <b>70</b> |                                 |
|                                       | <b>03</b>                      | —        | —          | <b>TA</b>                               | <b>:</b> | <b>10</b> |                                 |
|                                       |                                |          |            | <b>CT</b>                               | <b>:</b> | <b>20</b> |                                 |

**Rationale:** Textile and fashion designers should have thorough knowledge about basic elements and principles of designing. That includes repetition, alternation, harmony, gradation, balance, etc. Fashion is a natural instinct in people. The field of fabric decoration, now commonly called surface design, has seen great deal of growth and development. Interaction of design professional at national and international level requires thorough knowledge. The aspects of design affect differently to human beings of different age groups. The students of diploma course should develop very good skill related to textile and fashion design.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

**\* Use principles of textile and fashion design for development of textile and fashion.**

### Course Outcomes (COs):

The theory, practical experiences and relevant soft skills associated with this course are to be taught and implemented, so that the student demonstrates the following industry oriented COs associated with the above-mentioned competency:

1. Apply elements of art and fashion in design.
2. Use different principles of design for creating designs.
3. Use relevant colour theories and harmonies for developing textile and fashion designs.
4. Compose various traditional and innovative textile designs.
5. Interpret psychology of clothing for selecting the wardrobes.

| UNIT          | CONTENTS (Theory)   | Hrs | Marks |
|---------------|---|-----|-------|
| <b>Unit-1</b> | <p><b>Elements of Art and Fashion Design</b></p> <p>1.1. Line – concept, definition, types of line<br/>                     1.2. Direction – types<br/>                     1.3. Shape – definition, types<br/>                     1.4. Size - concept, types<br/>                     1.5. Texture – concept and application<br/>                     1.6. Value – concept, use<br/>                     1.7. Colour – definition, sensation process and use<br/>                     1.8. Form – concept, use<br/>                     1.9. Concept and definition of design<br/>                     1.10. Designer types – industrial, graphic, textile and fashion.</p> | 06  | 10    |
| <b>Unit-2</b> | <p><b>Principles of Design</b></p> <p>2.1. Repetition – technical concept, Alteration – size, direction, colour, shape, permutation and combination, Harmony – pure and discord, Gradation – shape, size and colour, Contrst – colour and value. Unity – concept development. Balance – formal and informal balance.<br/>                     2.2. Dominance and sub-ordination – concept and application.<br/>                     2.3. Overview, Types of Structural design and Decorative design.<br/>                     2.4. Concept of style, fad and classic.</p>   | 12  | 20    |
| <b>Unit-3</b> | <p><b>Colour Theories and Harmonies</b></p> <p>3.1. Light theory of colour – chromatic circle, colour vision.<br/>                     3.2. Pigment theory of colour – colour wheel, attributes of primary and secondary colours.<br/>                     3.3. Colour modification – concept, need and requirements.<br/>                     3.4. Colour harmony – achromatic, monochromatic, analogous, complementary, polychromatic.<br/>                     3.5. Effect of textile substrate on appearance of colour and simple colour and weave effects.</p>   | 08  | 12    |

|               |   |           |           |
|---------------|---|-----------|-----------|
| <b>Unit-4</b> | <b>Composition of Textile Design and Traditional Textile Designs</b><br>4.1. All over repeating design<br>4.2. Drop based designs – half, full, drop reverse and universe, diamond, ogee, sateen (regular and irregular)<br>4.3. Indus valley civilization<br>4.4. Indian brocades<br>4.5. Shawls of India, Indian embroidery, Indian dyed and printed fabrics. | 10        | 18        |
| <b>Unit-5</b> | <b>Psychology of Clothing</b><br>5.1. First impression<br>5.2. Role of social, psychological and economical aspects of clothing.<br>5.3. Origin of fashion and fashion propagation  | 06        | 10        |
|               | <b>Total</b>  | <b>42</b> | <b>70</b> |

### CO PO MAPPING:

| Course code.CO number      | CO Statement   | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PSO1 | PSO2 |
|----------------------------|--|-----|-----|-----|-----|-----|-----|-----|------|------|
| <b>C22...303.1</b>         | Apply elements of art and fashion in design.   |     |     |     |     |     |     |     |      |      |
| <b>C22...303.2</b>         | Use different principles of design for creating designs.                               |     |     |     |     |     |     |     |      |      |
| <b>C22...303.3</b>         | Use relevant colour theories and harmonies for developing textile and fashion designs. |     |     |     |     |     |     |     |      |      |
| <b>C22...303.4</b>         | Compose various traditional and innovative textile designs.                            |     |     |     |     |     |     |     |      |      |
| <b>C22...303.5</b>         | Interpret psychology of clothing for selecting the wardrobes.                          |     |     |     |     |     |     |     |      |      |
| <b>C22...303 (Average)</b> |  |     |     |     |     |     |     |     |      |      |

Enter correlation levels 1, 2 or 3 as :

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High) If there is no correlation, Then put “-”

### List of Recommended Books / Reference

| S. No. | Title of Books  | Author              | Publication  |
|--------|---|---------------------|--|
| 1      | Inside the fashion business                                     | Dickerson Kitty G.  | Person Education Pvt. Ltd. Singapore. 2004                   |
| 2      | Elements of fashion and design                                  | Gertrud Lehnert     | West Duxbury Manchesters. 1995                               |
| 3      | Watson’s Textile Design and Colour                              | Grosicki Z          | Universal Publishing Corporation, London. ISBN 9781855739956 |
| 4      | History of Textile Design                                       | Shenai V A          | Sevak Publication, Mumbai, 1977                              |
| 5      | Instruction Package on Application of Art and Design to Textile | Sadhale C R         | Private circulation TTTL, Bhopal and DKTE Ichalkaranji       |
| 6      | Traditional Indian Costume and Textile                          | Dr. Parul Bhatnagar | Abhishek publication, Chandigarh                             |

# PATTERN MAKING

|                                 |                                |          |            |   |          |           |                            |
|---------------------------------|--------------------------------|----------|------------|---|----------|-----------|----------------------------|
| <b>Subject Code<br/>2051304</b> | <b>Theory</b>                  |          |            | <b>No of Period in one session : 42</b> |          |           | <b>Credits<br/><br/>03</b> |
|                                 | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                            |
|                                 | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>ESE</b>                              | <b>:</b> | <b>70</b> |                            |
|                                 | <b>03</b>                      | —        | —          | <b>TA</b>                               | <b>:</b> | <b>10</b> |                            |
|                                 |                                |          |            | <b>CT</b>                               | <b>:</b> | <b>20</b> |                            |

**Rationale:** Pattern making is the heart of garment industry. The student should be able to develop pattern by following appropriate process. Knowledge on human body measurement and creation of pattern for customers plays vital role in fashion industry. Skills in simple pattern making are to be developed in students through this course. Students should be able to apply the science of measuring human size and creating pattern from the measurement. Students should develop commercial pattern from the basic pattern.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

\* **Create garment patterns by drafting methods.**

**Course Outcomes (COs):**

The theory, practical experiences and relevant soft skills associated with this course are to be taught and implemented, so that the student demonstrates the following industry oriented COs associated with the above-mentioned competency:

1. Measure body, dummy and garments by selecting relevant measurement techniques.
2. Interpret the principles and symbols used in pattern making.
3. Draft the specified basic bodice and adapted patterns Sleeves and Collars for kids wear.
4. Manipulate different Patterns by using Basic bodice block for women with different Sleeves and Collars.
5. Draft the basic men’s Trouser and Basic shirt with different Collars and Sleeves.

| UNIT          | CONTENTS (Theory)  | Hrs | Marks |
|---------------|--|-----|-------|
| <b>Unit-1</b> | <p><b>Measurements: Methods of measurements</b></p> <p>1.1. Measuring from body, dummy and readymade garment.<br/>                     1.2. Measurement Types – vertical, horizontal and circumferential measurements.<br/>                     1.3. Standard measurement charts.<br/>                     1.4. Measuring Tools - Measuring tape, ruler, L-scale, 1/4<sup>th</sup> scale, flexi tape.<br/>                     1.5. Tracing Tools- Tracing wheel, Tailors Chalk, Carbon Paper, Tracing paper, Marking Pen and Pencils.<br/>                     1.6. Cutting Tools – Scissors, Pinking shears. notcher,<br/>                     3. Stationary material such as pencil, eraser, scale, Brown Paper Drafting.</p> | 05  | 08    |
| <b>Unit-2</b> | <p><b>Techniques of Pattern Making</b></p> <p>2.1. Introduction to pattern making – definition, Introduction to pattern making principles.<br/>                     2.2. Basic terminologies – selvedge, grain-line, on-grain, cross-grain, bias-grain, length-grain, true-bias, bust point, Dart.<br/>                     2.3. Symbols and landmark terms used in pattern making.<br/>                     2.4. Techniques in pattern making – Drafting and Draping techniques.<br/>                     2.5. Methods of pattern making – bespoke, industrial method.<br/>                     2.6. Types of patterns – Basic block and adaptation.</p>  | 07  | 10    |
| <b>Unit-3</b> | <p><b>Drafting for Kids Wear</b></p> <p>3.1. Introduction to various garment components, Sleeve, Collar, Fly, Basic bodice for kids.<br/>                     3.2. Drafting of various types of sleeves – Plain Sleeve, Puff Sleeve, Bell Sleeves, Tulip.<br/>                     3.3. Drafting of various types of collars – Peter-Pan Collar, Sailor Collar.<br/>                     3.4. Drafting of A-line frock, Drafting of Waist line frock, Drafting of Boy’s Shorts.</p>  | 10  | 16    |
| <b>Unit-4</b> | <p><b>Drafting for Women’s Wear</b></p> <p>4.1. Close fitting bodice block for women, Introduction to various garment components – Sleeves and Collars.<br/>                     4.2. Drafting of various types of sleeves – Plain Sleeve, Cap Sleeve, Bishop Sleeve, Leg of mutton sleeve, Kimono , Dolman, Magyar sleeve.<br/>                     4.3. Drafting of various types of collars – Stand collar, shawl collar.<br/>                     4.4. Drafting of Kameez, Salwar, Nighty, Drafting of Saree Blouse.</p>   | 10  | 18    |

|               |  |           |           |
|---------------|--|-----------|-----------|
| <b>Unit-5</b> | <b>Drafting for Men's Wear</b><br>5.1. Drafting of Men's Shirt block.<br>5.2. Drafting of sleeves – Shirt Sleeve, Raglan Sleeves.<br>5.3. Drafting of Collars – Shirt Collars, Roll Collar.<br>5.4. Drafting of Men's Trouser Block. | 10        | 18        |
|               | <b>Total</b>   | <b>42</b> | <b>70</b> |

### CO PO MAPPING:

| Course code.CO number      | CO Statement  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PSO1 | PSO2 |
|----------------------------|---|-----|-----|-----|-----|-----|-----|-----|------|------|
| <b>C22...304.1</b>         | Measure body, dummy and garments by selecting relevant measurement techniques.                          |     |     |     |     |     |     |     |      |      |
| <b>C22...304.2</b>         | Interpret the principles and symbols used in pattern making.  |     |     |     |     |     |     |     |      |      |
| <b>C22...304.3</b>         | Draft the specified basic bodice and adapted patterns Sleeves and Collars for kids wear.                |     |     |     |     |     |     |     |      |      |
| <b>C22...304.4</b>         | Manipulate different Patterns by using Basic bodice block for women with different Sleeves and Collars. |     |     |     |     |     |     |     |      |      |
| <b>C22...304.5</b>         | Draft the basic men's Trouser and Basic shirt with different Collars and Sleeves.                       |     |     |     |     |     |     |     |      |      |
| <b>C22...304 (Average)</b> |   |     |     |     |     |     |     |     |      |      |

Enter correlation levels 1, 2 or 3 as :

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High) If there is no correlation, Then put “-”

### List of Recommended Books / Reference

| S. No. | Title of Books                                  | Author                  | Publication   |
|--------|---|-------------------------|---|
| 1      | Pattern making for fashion design.              | Helen Joseph -Armstrong | Dorling Kindersley (India) Pvt. Ltd                       |
| 2      | Fabric, form and flat pattern cutting           | Winifred Aldrich        | Blackwell Publishing                                      |
| 3      | Pattern Grading for Women's Cloths              | Gerry Cooklin           | Willey –Black Well  |
| 4      | Zarapkar System of Cutting                      | Zarapkar, K R           | Sale Publishers, Bombay<br>ISBN: 9788124301999            |
| 5      | Pattern making for fashion design.              | Armstrong, Helen Joseph | Harper Collins,Publishers, LA<br>ISBN: 9780136069348      |
| 6      | Metric Pattern Cutting                          | Aldrich, Winifred       | Blackwell Science Ltd., Londen<br>ISBN: 978-1-4443-0929-4 |
| 7      | Pattern Cutting Made Easy                       | Holman, Gillian         | Blackwell Science Ltd., Londen<br>ISBN: 9780713480931     |
| 8      | More Dress Pattern Designing                    | Bray, Natalie           | Blackwell Science Ltd., Londen<br>ISBN: 978-0632065028    |
| 9      | Master Patterns and Grading for women's outsize | Cooklin, Gerry          | Blackwell Science Ltd., Londen<br>ISBN: 9780632039159     |
| 10     | Master Patterns and Grading for men's outsize   | Cooklin, Gerry          | Blackwell Science Ltd., Londen<br>ISBN: 9780632039158     |

# INDIAN AND WORLD COSTUMES

|                                       |                                |          |            |   |          |           |                                 |
|---------------------------------------|--------------------------------|----------|------------|---|----------|-----------|---------------------------------|
| <b>Subject Code</b><br><b>2051305</b> | <b>Theory</b>                  |          |            | <b>No of Period in one session : 42</b> |          |           | <b>Credits</b><br><br><b>03</b> |
|                                       | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                                 |
|                                       | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>ESE</b>                              | <b>:</b> | <b>70</b> |                                 |
|                                       | <b>03</b>                      | —        | —          | <b>TA</b>                               | <b>:</b> | <b>10</b> |                                 |
|                                       |                                |          |            | <b>CT</b>                               | <b>:</b> | <b>20</b> |                                 |

**Rationale:** This course aims at building a foundation for the further courses related to fashion and clothing technology and other allied courses in coming semesters. Fashion and clothing technology students should have thorough knowledge of Indian and Western historical costumes and accessories according to religion, climate, ethical values, social life-style and prosperity. This course will help student to distinguish traditional costumes and relate them to the costumes and life style of different countries of the world. The course focuses on developing imagination which enables students to use this attire as source of inspiration to develop contemporary fashion.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

\* **Design contemporary fashion based on Indian and World costumes from past fashion to future fashion.**

### Course Outcomes (COs):

The theory, practical experiences and relevant soft skills associated with this course are to be taught and implemented, so that the student demonstrates the following industry oriented COs associated with the above-mentioned competency:

1. Modify fashions of western countries from different time periods to create contemporary garments.
2. Create styles inspired from the eastern costumes for given design requirement.
3. Use elements, styles and accessories pertaining to various state of India.
4. Create designs for costumes of specified regions of India.
5. Interpret current fashion trends and recommend styles for future fashion.

| UNIT   | CONTENTS (Theory)   | Hrs | Marks |
|--------|---|-----|-------|
| Unit-1 | <p><b>Western Costumes- Europe and America</b></p> <p><b>1.1. Earlier European costumes:</b><br/>                     a. <b>Overview of 18<sup>th</sup> century European costumes-</b> Chinoiserie, Coats and capes, Corsets, Engagements, Knee Breeches, Panniers, Polonaise Styles, Robes, Sack Gowns, Trousers.<br/>                     b. <b>Changes in 19<sup>th</sup> century European costumes due to Industrial Revolution</b> – Bathing Costumes, Besty, Bloomers, Coats, Crinoline, Ditto Suits, The Dandy Dress.<br/> <b>1.2. 20<sup>th</sup> century costumes in Europe- 1900-2000:</b> – Brassiers, hobble skirts, jumper gown, peg top, sack suit, trench coats, little black dress, sarongs, military uniforms and civilian dress, zoot suit, a-line skirt, bell bottoms, cat suit, Gaucho pants, hot pants, peasant look, mini skirt, halter top, velour, baggy jeans, Goth style, sweatshirt, wonder bra.<br/> <b>1.3. Earlier American costumes:</b> a. American Revolution in 18<sup>th</sup> century. b. Native American costumes in 19<sup>th</sup> century- western dress, Blankets, Breechclout, Cloaks, Leggings, Skirt.<br/> <b>1.4. 20<sup>th</sup> century – American influence on world costumes – 1900-2000</b></p> | 06  | 12    |
| Unit-2 | <p><b>Far Eastern Costumes- Japan and Indonesia</b></p> <p><b>1.1. Japanese costumes:</b> Tradition costumes of Japan- Kimono, Kosode, Furisode, Hirosode, Hakama, OBI – Saha, Geisha.<br/> <b>1.2. Make up, Hairstyles and Body decoration, Accessories and Footwear-</b> Geta, Tabis, Zori.<br/> <b>2.3. Indonesian costumes:</b> National costumes- Batik, Kebaya, Peci.<br/> <b>2.4. Indonesian Regional costumes:</b> Baju Kolo, Beskap, Baju Kurung, Baju Bodo, Headgears and Accessories.</p>  | 06  | 12    |

|               |  |           |           |
|---------------|--|-----------|-----------|
| <b>Unit-3</b> | <b>Indian Costumes- Northern Region</b><br><b>3.1. Jammu and Kashmir:</b><br>a. Costumes: Peharan, Salwar, Pattu, Skull Cap, Khaji. Costumes of Dogra, Zachaldara, Kharboo, Tribal villages.<br>b. Accessories and Ornaments.<br><b>3.2. Punjab:</b><br>a. Costumes: Tehmed, Kurta, Pyjama, salwar, Kameeze, Orhani, Churidar. Ghagra, Dupatta, Turban, Khes.<br>b. Accessories and Ornaments.<br><b>3.2. Rajasthan:</b><br>Costumes: Dhoti, Bandiya, Angarakha, Potia, Jodhapur Breeches, Achkan, Pichranga Pagdi, Kamberbandth, Khes, Turban. Accessories and Ornaments.                           | 10        | 14        |
| <b>Unit-4</b> | <b>Indian Costumes- Southern and Western Region</b><br><b>4.1. Gujarat:</b><br>a. Costumes: Kanchali, Chorno, Angarkha, Ghagra, Pheto, Safo, Different types of Sarees and Textiles.<br>b. Accessories and Ornaments.<br><b>4.2. Maharastra:</b><br>a. Costumes: Dhoti, Sadra, Pheta, Uparni, Barabandi, Coat, Pagdi, Choli, Golnesana, Sakachcha-Nesana<br>b. Draping style – Golnesana, Sakachcha- Nesana Dhoti, Pheta, Uparna, Accessories and Ornaments.<br><b>4.3. Karnataka:</b><br>a. Costumes: Dhota, Shalya, Turban, Kuppasa, Saree draping – Coorg saree.<br>b. Accessories and Ornaments. | 12        | 18        |
| <b>Unit-5</b> | <b>Present and Future Fashion</b><br>5.1. Factors affecting fashion trends.<br>5.2. Current trends in western and Indian costumes.<br>5.3. Forecast and Design for future fashion.<br>5.4. Costumes selection for different situation.   | 08        | 14        |
|               | <b>Total</b>   | <b>44</b> | <b>70</b> |

## CO PO MAPPING:

| Course code.CO number      | CO Statement  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PSO1 | PSO2 |
|----------------------------|---|-----|-----|-----|-----|-----|-----|-----|------|------|
| <b>C22...305.1</b>         | Modify fashions of western countries from different time periods to create contemporary garments. |     |     |     |     |     |     |     |      |      |
| <b>C22...305.2</b>         | Create styles inspired from the eastern costumes for given design requirement.                    |     |     |     |     |     |     |     |      |      |
| <b>C22...305.3</b>         | Use elements, styles and accessories pertaining to various state of India.                        |     |     |     |     |     |     |     |      |      |
| <b>C22...305.4</b>         | Create designs for costumes of specified regions of India.  |     |     |     |     |     |     |     |      |      |
| <b>C22...305.5</b>         | Interpret current fashion trends and recommend styles for future fashion.                         |     |     |     |     |     |     |     |      |      |
| <b>C22...305 (Average)</b> |   |     |     |     |     |     |     |     |      |      |

Enter correlation levels 1, 2 or 3 as :

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High) If there is no correlation, Then put “-”

## List of Recommended Books / Reference

| S. No. | Title of Books   | Author  | Publication   |
|--------|--|---|---|
| 1      | Fashion from Ancient Egypt to the present day  | Mila Contini  | West Duxbury, Manchester, ISBN No. 9780517099872        |
| 2      | History of fashion in 20 <sup>th</sup> Century   | Gertrud Lehnert   | West Duxbury, Manchester, ISBN No. 9783829020336        |
| 3      | Fashion, Costume and Culture: Clothing, Headwear, Body Decorations and Footwear through the ages | Sara Pendergast and Tom Pendergast, Sarah Hermsen<br>Project Editor | Thomson Gale<br>ISBN: 9780787654214                     |
| 4      | History of 20 <sup>th</sup> Century Fashion  | Elizabeth Ewing   | Quite Specific Media Group Ltd.;<br>ISBN: 9780896762381 |
| 5      | Ancient Indian Costume   | Alkazi, Roshen  | South Asia Books<br>ISBN: 9780836413342                 |
| 6      | Costumes and textiles of royal India   | Kumar, Ritu   | Christie's, ISBN: 9780903432559                         |
| 7      | Traditional Indian Costume and Textile   | Dr. Parul Bhatnagar   | Abhishek publication, Chandigarh                        |
| 8      | Textile and embroidery of India  | John Irvin  | Marry Publications, Bombay.                             |
| 9      | Indian Textiles  | John Gillow & Nicholas Barnard                                      |   |

## PATTERN MAKING LAB

|                                       |                                |          |            |   |          |           |                |           |
|---------------------------------------|--------------------------------|----------|------------|---|----------|-----------|----------------|-----------|
| <b>Subject Code</b><br><b>2051306</b> | <b>Practical</b>               |          |            | <b>No of Period in one session : 60</b> |          |           | <b>Credits</b> |           |
|                                       | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                | <b>03</b> |
|                                       | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>Internal (PA)</b>                    | <b>:</b> | <b>15</b> |                |           |
|                                       | —                              | —        | <b>04</b>  | <b>External (ESE)</b>                   | <b>:</b> | <b>35</b> |                |           |

**Rationale:** Pattern making is the heart of garment industry. The student should be able to develop pattern by following appropriate process. Knowledge on human body measurement and creation of pattern for customers plays vital role in fashion industry. Skills in simple pattern making are to be developed in students through this course. Students should be able to apply the science of measuring human size and creating pattern from the measurement. Students should develop commercial pattern from the basic pattern.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

**\* Create garment patterns by drafting methods.**

### Course Outcomes (COs)

1. Measure body, dummy and garments by selecting relevant measurement techniques.
2. Interpret the principles and symbols used in pattern making.
3. Draft the specified basic bodice and adapted patterns Sleeves and Collars for kids wear.
4. Manipulate different Patterns by using Basic bodice block for women with different Sleeves and Collars.
5. Draft the basic men's Trouser and Basic shirt with different Collars and Sleeves.

| UNIT          | CONTENTS (Practical)   | Approx. Hrs required |
|---------------|--|----------------------|
| <b>Unit-1</b> | 1. Record measurements from given body, dummy and / or garment.  | 02                   |
| <b>Unit-2</b> | 2. Demonstrate pattern making tools and symbols.   | 02                   |
| <b>Unit-3</b> | 3. Draft Children's Basic Bodice – 7 years (1/4 <sup>th</sup> Scale)<br>4. Draft Plain sleeve of Children's Basic Bodice – 7 years (1/4 <sup>th</sup> Scale)<br>5. Draft the pattern for A-line frock (1/4 <sup>th</sup> Scale)<br>6. Adapt the Puff sleeve from the basic sleeve.<br>7. Draft the pattern for Waist-Line Frock (1/4 <sup>th</sup> Scale)<br>8. Draft the pattern for Boys Shorts (1/4 <sup>th</sup> Scale)<br>9. Draft the pattern for Sun suit (1/4 <sup>th</sup> Scale)   | 24                   |
| <b>Unit-4</b> | 10. Draft the pattern for Female Basic Skirt (1/4 <sup>th</sup> Scale)<br>11. Draft the pattern for Close Fitting Basic Bodice (1/4 <sup>th</sup> Scale)<br>12. Draft the basic sleeve block for Close Fitting Basic Bodice (1/4 <sup>th</sup> Scale)<br>13. Draft Bishop Sleeve from basic Sleeve block (1/4 <sup>th</sup> Scale)<br>14. Draft the pattern for women's Nighty Block by using Bespoke method (1/4 <sup>th</sup> Scale)<br>15. Draft the pattern for Kameez for Women (1/4 <sup>th</sup> Scale)<br>16. Draft the pattern for Salwar for women (1/4 <sup>th</sup> Scale)<br>17. Draft the pattern for Women's Plain Saree Blouse (1/4 <sup>th</sup> Scale) | 24                   |
| <b>Unit-5</b> | 18. Draft the pattern for Men's basic Shirt Block (1/4 <sup>th</sup> Scale)<br>19. Draft the pattern for Men's basic Sleeve with Cuff and Collar (1/4 <sup>th</sup> Scale)<br>20. Draft the pattern for Men's Flat Front Trouser Block (1/4 <sup>th</sup> Scale).  | 08                   |
|               | <b>Total</b>   | <b>60</b>            |

# TEXTILE AND FASHION DESIGN LAB

|                                       |                                |          |            |   |          |           |                                 |
|---------------------------------------|--------------------------------|----------|------------|---|----------|-----------|---------------------------------|
| <b>Subject Code</b><br><b>2051307</b> | <b>Practical</b>               |          |            | <b>No of Period in one session : 60</b> |          |           | <b>Credits</b><br><br><b>02</b> |
|                                       | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                                 |
|                                       | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>Internal (PA)</b>                    | <b>:</b> | <b>15</b> |                                 |
|                                       | —                              | —        | <b>04</b>  | <b>External (ESE)</b>                   | <b>:</b> | <b>35</b> |                                 |

**Rationale:** Textile and fashion designers should have thorough knowledge about basic elements and principles of designing. That includes repetition, alternation, harmony, gradation, balance, etc. Fashion is a natural instinct in people. The field of fabric decoration, now commonly called surface design, has seen great deal of growth and development. Interaction of design professional at national and international level requires thorough knowledge. The aspects of design affect differently to human beings of different age groups. The students of diploma course should develop very good skill related to textile and fashion design.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

**\* Use principles of textile and fashion design for development of textile and fashion.**

### Course Outcomes (COs)

1. Apply elements of art and fashion in design.
2. Use different principles of design for creating designs.
3. Use relevant colour theories and harmonies for developing textile and fashion designs.
4. Compose various traditional and innovative textile designs.
5. Interpret psychology of clothing for selecting the wardrobes.

### CONTENTS (Practical)

1. Develop on paper, the natural, decorative, geometrical and abstract motifs. \*
  2. Develop on paper, striped shirting design for office wear with achromatic colour harmony. \*
  3. Develop on paper, checks shirting design for casual wear with monochromatic colour harmony.
  4. Modify on paper, the given colour on paper based on standard colour modification chart. \*
  5. Develop on paper, curtain material design with analogous colour harmony.
  6. Develop on paper, ladies dress material design with complementary colour harmony.
  7. Develop on paper, kids wear design with polychromatic colour harmony.
  8. Develop on paper, the chart for light theory of colour.
  9. Develop on paper, the chart for pigment theory of colour.
  10. Develop on paper, tints, tones and shades of any three colours.
  11. Develop on paper, standard colour wheel.
  12. Compose all over textile design with diamond or ogee base. \*
  13. Compose all over textile design with sateen or half drop base.
  14. Develop on paper, Indian traditional motif. \*
  15. Develop school uniform for kids using pleats. \*
  16. Develop on paper, party wear for teenager using decorative motif.
- (\* are compulsory)

## EMBROIDERY LAB

|                                       |                                |          |            |   |          |           |                                 |
|---------------------------------------|--------------------------------|----------|------------|---|----------|-----------|---------------------------------|
| <b>Subject Code</b><br><b>2051308</b> | <b>Practical</b>               |          |            | <b>No of Period in one session : 32</b> |          |           | <b>Credits</b><br><br><b>01</b> |
|                                       | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                                 |
|                                       | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>Internal (PA)</b>                    | <b>:</b> | <b>07</b> |                                 |
|                                       | —                              | —        | <b>02</b>  | <b>External (ESE)</b>                   | <b>:</b> | <b>18</b> |                                 |

**Rationale:** Embroidery is most commonly used ornamentation technique used in value addition of garment. India has rich heritage of different embroidery styles belonging to different geographical regions. Development of skills in embroidery work enables the student with more creative art work in design. After completing this course student will be able to develop hand and machine embroidery art work using appropriate needles, threads, and motifs. Student will create ornamented embroidered designs on computerized machines. Students will use his/her embroidery skill in marketing fashion garments.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

**\* Develop different embroidery designs on garment**

### Course Outcomes (COs)

1. Use embroidery tools and equipment effectively.
2. Use different types of basic hand embroidery stitches.
3. Prepare samples of traditional embroidery of Eastern and Western India
4. Use computerized embroidery machines to produce embroidered designs.
5. Identify different ornamentation techniques for garment value addition.

| UNIT          | CONTENTS (Practical)   | Approx. Hrs required |
|---------------|--|----------------------|
| <b>Unit-1</b> | 1. Prepare designs using different transfer techniques- Tracing paper and Carbon paper, Glass table.   | 02                   |
| <b>Unit-2</b> | 2. Prepare sample of various hand stitches- Running stitch, Back stitch, Steam stitch, Satin stitch.<br>3. Prepare sample of various stitches- Chain stitch, Blanket stitch, Herring bone, Over casting.   | 04                   |
| <b>Unit-3</b> | 4. Develop design for Kantha Embroidery of West Bengal using traditional motifs, colour and Materials.<br>5. Develop design for Katchi Embroidery of Gujrat using traditional motifs, colour and Materials.<br>6. Develop design for Rabari Embroidery of Rajasthan using traditional motifs, colour and Materials.  | 06                   |
| <b>Unit-4</b> | 7. Develop design for Kashida Embroidery of Kashmir using traditional motifs, colour and Materials.<br>8. Develop design for Phulkari Embroidery of Punjab using traditional motifs, colour and Materials.<br>9. Develop design for Chickenkari Embroidery of Uttar Pradesh using traditional motifs, colour and Materials.<br>10. Develop design for Kasuti Embroidery of Karnataka using traditional motifs, colour and Materials. | 08                   |
| <b>Unit-5</b> | 11. Use computerized embroidery machines with appropriate needle, thread and fabric.<br>12. Create basic design elements with computerized embroidery machine software.<br>13. Develop the design in computerized embroidery machines- alphabetical design.<br>14. Develop the design in computerized embroidery machines- creative design.  | 08                   |
| <b>Unit-6</b> | 15. Develop one embroidered sample using Bead work.<br>16. Draft Develop one embroidered sample using Sequins work.  | 04                   |
| <b>Total</b>  |  | <b>32</b>            |

### List of Recommended Books

| S. No. | Title of Books                                | Author           | Publication   |
|--------|---|------------------|---|
| 1      | Embroidered textiles                          | Paine Shaila     | Thames and Hudson Ltd., Delhi<br>ISBN No. 97805005113941      |
| 2      | Inspirational ideas for embroideries of India | Lawther Gail     | Search Press Ltd.   |
| 3      | Traditional embroideries of India             | Naik Shailaja D  | APH publishing corporation, New Delhi.<br>ISBN: 9788170247319 |
| 4      | Complete guide to needle work                 | Reader Digest    | Reader Digest, 1981<br>ISBN: 978-0340270820                   |
| 5      | Ethnic Embroidery of India                    | Usha Shrikant    | Om Books, 2005.<br>ISBN: 978-8175250796                       |
| 6      | Folk Embroidery of western Himalaya           | Subhashini Aryan | Rekha Prakashan, 2010;<br>ISBN: 978-8190439411                |

# SURFACE ORNAMENTATION LAB

|                                       |                                |          |            |   |          |           |                                 |
|---------------------------------------|--------------------------------|----------|------------|---|----------|-----------|---------------------------------|
| <b>Subject Code</b><br><b>2051309</b> | <b>Practical</b>               |          |            | <b>No of Period in one session : 34</b> |          |           | <b>Credits</b><br><br><b>01</b> |
|                                       | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                                 |
|                                       | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>Internal (PA)</b>                    | <b>:</b> | <b>07</b> |                                 |
|                                       | —                              | —        | <b>02</b>  | <b>External (ESE)</b>                   | <b>:</b> | <b>18</b> |                                 |

**Rationale:** The surface ornamentation provides the hands on experience to use different techniques which are useful to create texture and richly embellished fabric and accessory to add value to product. It also helps to splendor to clothes using decorative methods of handicrafts, yarn crafts, adorn garments as well as in article with own style, more tastefully and skillfully according to design.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

\* Use relevant surface ornamentation techniques.

**Course Outcomes (COs)**

1. Use relevant tools and materials for Surface ornamentation.
2. Apply fabric knotting techniques for developing tie-dye articles.
3. Compile motifs of various tribal art for designing.
4. Use design and create fabric textures for developing articles.

| UNIT          | CONTENTS (Practical)  | Approx. Hrs required |
|---------------|---|----------------------|
| <b>Unit-1</b> | 1. Prepare a catalogue of tools and accessories and their specifications.   | 02                   |
| <b>Unit-2</b> | <p><b>2. Complete one art work exercise from Group A and one from group B as per development procedure specified from 2A1 to 2A8 or 2B1 to 2B8 or 2C1 to 2C8. Prepare brief report on selected ornamentation techniques as specified.</b></p> <p><b>Group-A. Tribal Thread Work</b><br/>                     2A. Prepare any one article by using any one technique i.e. Crewel Work, Toda embroidery, Banjara embroidery, Smocking and Quilting, Metal work, Rabari work.<br/> <b>Steps for Development of art work using Tribal thread work.</b><br/>                     2A1. Create own design using research work.<br/>                     2A2. Trace own designs on tracing/butter paper.<br/>                     2A3. Develop the design (khaka) and trace the design on the article.<br/>                     2A4. Embroider the sample with suitable stitch types and colour schemes.<br/>                     2A5. Continue the preceding sample of embroidery/ smocking.<br/>                     2A6. Complete the embroidery/ smocking work.<br/>                     2A7. Finish the selected article.<br/>                     2A8. Prepare brief report on selected ornamentation techniques with respect to colour, motif and layout.</p>  | 16                   |
|               | <p><b>Group-B (Tribal Painting and tie Dye Batik)</b><br/>                     2A. Prepare any one article by using any one art i.e. Kalamari / Madhubani /Warali / Pata folk art /Miniature painting / Tie-Dye/ Batik (As per procedure from 2B1 to 2B8 or 2C1 to 2C8).<br/> <b>Steps for Development of Hand Painting.</b><br/>                     2B1. Create own design using research work.<br/>                     2B2. Trace own designs on tracing/butter paper.<br/>                     2B3. Develop the design (khaka) and trace the design on the article.<br/>                     2B4. Paint the sample with relevant style and colour scheme.<br/>                     2B5. Continue with the preceding sample.<br/>                     2B6. Complete the painting.<br/>                     2B7. Finish the selected article.<br/>                     2B8. Prepare brief report on selected ornamentation techniques with respect to colour, motif and layout.<br/> <b>Steps for Development of art using Tie-Dye/Batik/Block</b><br/>                     2C1. Prepare the fabric for dyeing.<br/>                     2C2. Transfer/tie the design on sample.<br/>                     2C3. Prepare the dye-bath / apply wax on the sample.<br/>                     2C4. Dye the sample with given colour.<br/>                     2C5. Dye with second colour.<br/>                     2C6. Dye with third colour/ different dye class.<br/>                     2C7. Finish the process (after treatment)<br/>                     2C8. Prepare brief report on selected ornamentation techniques with respect to meaning, process and techniques.</p> | 16                   |
|               | <b>Total</b>  | <b>34</b>            |

**List of Recommended Books**

| S. No. | Title of Books                      | Author            | Publication  |
|--------|-------------------------------------|-------------------|--|
| 1      | Folk Embroidery of western Himalaya | Subhashini Aryan  | Rekha Prakashan, 2010;<br>ISBN: 978-8190439411   |
| 2      | Kalamkari: Figures and Designs      | K. Prakash        | English Edition Publishers, 2004;<br>ISBN: 9788187853640   |
| 3      | Warali                              | Sudha Satyawadi   | D.K. Printworld, 2010;<br>ISBN: 9788124605578  |
| 4      | Indian Miniature Painting           | Anjan Chakraverty | Lustre Press; ISBN-13: 9788174363343   |
| 5      | Batik & Tie dye Technique           | Nancy Belfer      | Dover Publications Inc., United State, 1992;<br>ISBN-13: 9780486271316   |
| 6      | Madhubani Painting                  | Upendra Thakur    | 82, Humanities Books   |
| 7      | Indian Embroideries                 | John Irwin        | <a href="http://91.205.173.47/most-wished-for/indian-embroideries">http://91.205.173.47/most-wished-for/indian-embroideries</a> (Free Download); ISBN: 39015006733102;<br>UOM: 39015006733102. |

## PYTHON (Term Work)

|                                 |                         |   |                   |                  |    |         |    |
|---------------------------------|-------------------------|---|-------------------|------------------|----|---------|----|
| <b>Subject Code<br/>2000310</b> | Term Work               |   |                   |                  |    | Credits |    |
|                                 | No. of Periods Per Week |   |                   | Full Marks       | :  | 25      | 01 |
|                                 | L                       | T | P/TW              |                  |    |         |    |
|                                 | —                       | — | 02                | Internal<br>(PA) | :  | 07      |    |
| —                               | —                       | — | External<br>(ESE) | :                | 18 |         |    |

| CONTENTS: Practical |   | Hrs. | Ma |
|---------------------|---|------|----|
| <b>UNIT – 01</b>    | Write a program to demonstrate basic data type in python.   |      |    |
| <b>UNIT – 02</b>    | Write a program to compute distance between two points taking input from the user (Pythagorean Theorem)   |      |    |
| <b>UNIT – 03</b>    | Write a python program Using for loop, write a program that prints out the decimal equivalent of $1+\frac{1}{2}+\frac{1}{3}....\frac{1}{n}$   |      |    |
| <b>UNIT – 04</b>    | Write a Python program to find first n prime numbers.<br>Write a program to demonstrate list and tuple in python.   |      |    |
| <b>UNIT – 05</b>    | Write a program using a for loop that loops over a sequence.<br>Write a program using a while loop that asks the user for a number and prints a countdown from that number to zero. |      |    |
| <b>UNIT – 06</b>    | Write a Python Program to add matrices.<br>Write a Python program to multiply matrices.   |      |    |
| <b>UNIT – 07</b>    | Write a Python program to check if a string is palindrome or not.   |      |    |
| <b>UNIT – 08</b>    | Write a Python program to Extract Unique values dictionary values   |      |    |
| <b>UNIT – 09</b>    | Write a Python program to read file word by word<br>Write a Python program to Get number of characters, words.  |      |    |
| <b>UNIT – 10</b>    | Write a Python program for Linear Search  |      |    |

### References Books:

1. Taming Python by Programming, Jeeva Jose, Khanna Publishing House
2. Starting Out with Python, Tony Gaddis, Pearson
3. Core Python Programming, Wesley J. Chun, Prentice Hall
4. Python Programming: Using Problem Solving Approach, Reema Thareja, Oxford University

5. Introduction to Computation and Programming Using Python. John V. Guttag, MIT Press.

## TEXTILE MANUFACTURING (TW)

|                                       |                                |          |            |   |          |           |                                 |
|---------------------------------------|--------------------------------|----------|------------|---|----------|-----------|---------------------------------|
| <b>Subject Code</b><br><b>2051311</b> | <b>Term Work</b>               |          |            | <b>No of Period in one session : 32</b> |          |           | <b>Credits</b><br><br><b>01</b> |
|                                       | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                                 |
|                                       | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>Internal (PA)</b>                    | <b>:</b> | <b>07</b> |                                 |
|                                       | —                              | —        | <b>02</b>  | <b>External (ESE)</b>                   | <b>:</b> | <b>18</b> |                                 |

**Rationale:** Textile has evolved from the basic need of mankind i.e. clothing. Knowledge about raw material is very important in area of Fashion Design and Clothing Technology. A fashion technologist should have a basic knowledge about fibre, yarn and fabric. Students of diploma course must know the process sequence in spinning and weaving departments of textile manufacturing. They should be aware of the various quality and process parameters and also be able to produce quality fabric. This course aims at development of relevant competency in the area of textile manufacturing.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

\* Apply principles of yarn and fabric manufacturing process to produce plain woven fabric.

**Objectives:** The students will be able to:

1. Understand various areas associated with the Textiles
2. Understand various methods of yarn and fabric manufacturing.
3. List various processes involved in wet processing and garment manufacturing.
4. Know various applications of textiles.
5. Draw flow charts for yarn and fabric forming, wet processing and garment manufacturing.

### Content (Term Work)

1. Study of blow room machine and show passage of materials.
2. Study of carding machine and show passage of the material through carding machine.
3. Study of draw frame machine and show passage of the material through draw frame machine.
4. Study of combing machine and show passage of the material through combing machine.
5. Study of fly frame machine and show passage of the material through fly frame machine.
6. Study of ring frame machine and show passage of the material through ring frame machine.
7. Study of the wrap reel and weighing balance to determine the count.
8. Study of fabric sample to determine warp and weft direction in given fabric sample.
9. Study of fabric sample to determine the ends per inch and picks per inch.
10. Study of winding machine to convert smaller package to bigger package.
11. Study of warping machine to prepare raw material for next process.
12. Study of warping machine to determine the creel capacity and determine beam specification.
13. Study of power looms to correlate the principles of fabric manufacturing.
14. Study of multi-coloured warp and weft fabric to calculate crimp percentage, warp and weft count cover factor.
15. Determine warp and weft colour repeat.

## FASHION SKETCHING (TW)

|                                 |                                |          |            |   |          |           |                            |
|---------------------------------|--------------------------------|----------|------------|---|----------|-----------|----------------------------|
| <b>Subject Code<br/>2051312</b> | <b>Term Work</b>               |          |            | <b>No of Period in one session : 32</b> |          |           | <b>Credits<br/><br/>01</b> |
|                                 | <b>No. of Periods Per Week</b> |          |            | <b>Full Marks</b>                       |          |           |                            |
|                                 | <b>L</b>                       | <b>T</b> | <b>P/S</b> | <b>Internal (PA)</b>                    | <b>:</b> | <b>15</b> |                            |
|                                 | —                              | —        | <b>02</b>  | <b>External (ESE)</b>                   | <b>:</b> | <b>35</b> |                            |

**Rationale:** Fashion sketching or illustration is the first step of garment production process. It is essential for students to sketch figures with proper parameters. Size, shape, form are pre-requisites for any creation in fashion illustration students will understand imagination, visualization, representation of ideas based on various principles from fashion world.

**Competency:** The aim of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

**\* Render human figures for garment designing.**

### Course Outcomes (COs)

1. Select the required tools and materials for different drawings and sketching.
2. Draw fashion figures for men, women and kids.
3. Prepare relevant drawing using different elements of design.
4. Draw different motifs, patterns and textures.
5. Draw different types of darts, pleats and ruffles using principles of design.

| UNIT          | CONTENTS (Practical)  | Approx. Hrs required |
|---------------|---|----------------------|
| <b>Unit-1</b> | 1. Utilize the materials used in fashion illustration – carbon, pencils (6 H to 12 B), charcoal, china graph pencil, micro tip pencil, staedtler pencil, poster and pastel, fabric paints to draw basic sketches. *   | 02                   |
| <b>Unit-2</b> | 2. Illustrate basic human figure anatomy – 8 head, 10 head and 12 head. *<br>3. Draw different views – profile, ¾ turned, side and back view.<br>4. Flesh out the mechanical croqui for male.<br>5. Flesh out the mechanical croqui for female.<br>6. Illustrate the head theory for women – 8, 10, 12.<br>7. Illustrate the head theory for men – 8, 10, 12.<br>8. Illustrate the head theory for kids – 2, 4, 6.<br>9. Modify the figure – enlargement and reduction of front 10 head.  | 14                   |
| <b>Unit-3</b> | 10. Illustrate in detail basic figure features of women for heads, hairstyles, face, leg positions, and arms positions. *<br>11. Illustrate in detail basic figure features of men for heads, hairstyles, face, leg positions, and arms positions. *<br>12. Illustrate in detail basic figure features of kids for heads, hairstyles, face, leg positions, and arms positions. *<br>13. Illustrate in detail the difference between specified male and female figure. *<br>14. Illustrate in detail the overlapping figures – front, back, and profile.<br>15. Draw different poses for weight distribution. *<br>16. Illustrate in detail the accessories for men, women and children.<br>17. Illustrate in detail the different style-lines such as A-line, princess-line, empire-line. | 16                   |
| <b>Total</b>  |   | <b>32</b>            |

(\* are compulsory)

### List of Recommended Books

| S. No. | Title of Books                        | Author                                  | Publication   |
|--------|---------------------------------------|---|---|
| 1      | Fashion Sketch Book                   | Abling Bina                             | Om Books International (2004);<br>ISBN No. 9781609012281          |
| 2      | Illustrating Fashion                  | Kathryn Mc Kelvey and<br>Munslow Jamine | Black Well Publishing House (2004);<br>ISBN No. 978-1-4051-3952-6 |
| 3      | Encyclopaedia of Fashion Details      | Ireland Patrick John                    | B.T. Batsford and Om Publishers (2005);<br>ISBN: 9780713464337    |
| 4      | Fashion Design Illustration- Children | Ireland Patrick John                    | Om Books International (1995);<br>ISBN: 9780713466249             |
| 5      | Fashion Illustration and Rendering    | Bhargav Ritu                            | Jain Publishers (2005).<br>ISBN: 9788180565274                    |
| 6      | 9 head- A guide to drawing a fashion  | Riegelman, Nancy                        | 9 heads media (2012);<br>ISBN: 978-0970246356                     |

