

**STATE BOARD OF TECHNICAL EDUCATION, BIHAR**  
**Scheme of Teaching and Examinations for**  
**III<sup>RD</sup> SEMESTER DIPLOMA IN COSTUME DESIGN & GARMENT**  
**TECHNOLOGY**  
**(Effective from Session 2020-21 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	Pass Marks in the Subject	
1.	Basics of Costume Design & Garment Making	2042301	03	03	10	20	70	100	28	40	03
2.	Software skills	2042302	03	03	10	20	70	100	28	40	03
3.	Textile Science	2042303	03	03	10	20	70	100	28	40	03
4.	Visualization and Representation	2042304	03	03	10	20	70	100	28	40	03
5.	Clothing Construction	2042305	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	TEACHINGS SCHEME	Hours of Exam.	EXAMINATION – SCHEME			Total Marks (A+B)	Pass Marks in the Subject	Credits
			Periods per Week		Practical (ESE)					
					Internal (A)	External (B)				
6.	Software Skills Lab	2042306	06 50% Physical 50% Virtual	03	15	35	50	20	03	
7.	Visualization and Representation Lab	2042307	04 50% Physical 50% Virtual	03	15	35	50	20	02	
8.	Clothing Construction Lab.-I	2042308	02 50% Physical 50% Virtual	03	15	35	50	20	01	
<b>Total: - 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 (X)	Marks of External Examiner (Y)	Total Marks (X+Y)	Pass Marks in the Subject		
9.	Design Concepts & Details (TW)	2042309	04	23	52	75	30	02	
10.	Python / Others (TW)	2000310	02	07	18	25	10	01	
<b>Total: - 06</b>							<b>100</b>		<b>03</b>
Total Periods per week Each of duration one Hours = <b>33</b>							<b>Total Marks = 750</b>		<b>24</b>

# **BASICS OF COSTUME DESIGN & GARMENT MAKING**

<b>Subject Code 2042301</b>	<b>Theory</b>			<b>No of Period in one session: 42</b>			<b>Credits  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 is designed to acquaint the students with the basic understanding of the principles of costume design and the psychology of clothing. It will develop skills in students related to design development which emerges through a process of character analysis, based on the script and directorial concept.

**Objectives:** Students will be able to:

1. Understand different concepts of costume, fashion & design.
2. Understand elements of arts, principles of fashion design & different divisions in clothing industry.
3. Know about fashion & clothing industry.
4. Exposed to different concepts & terminologies used in fashion & clothing industry.

## **CONTENTS: THEORY**

	<b>Name of the Topic</b>	<b>Hrs</b>	<b>Marks</b>
<b>Unit-1</b>	<p><b>Introduction to Costume Design and Garment Making</b></p> <p>1.1 Basic concepts of Costume Design and Garment Making.</p> <p>1.2 <b>Brief history of Indian garments from ancient to modern times:</b> Harrappa and Mohenjodaro, Vedic Age, The Persian influence, The Greek influence, The Purdah system, Origin of the Royal Attire. Salwar – Kameez – The decades- old Indian Attire Garment.</p> <p>1.3 Brief information regarding: Ancient Egyptian dress, Ancient Greek dress, Ancient Roman dress, Dress in the French Revolution, The art of traditional Chinese dress.</p> <p>1.4 Importance of Costume Design in our life.</p> <p>1.5 Design Process: Analysis, Design collaboration, Costume research, Preliminary sketching and colour layout, Final sketches.</p> <p>1.6 Production process: Pattern Drafting or Draping.</p> <p>1.7 Costume Designer.</p> <p>1.8 Difference between costume design and fashion design.</p>	12	20
<b>Unit-2</b>	<p><b>Elements &amp; Principles</b></p> <p>2.1 Elements of arts: Line, form, shape, value, colour, texture. * Colour schemes. Colour co-ordination</p> <p>2.2 Principles of design: Balance, emphasis, harmony, proportions &amp; repetition</p> <p>2.3 Elements of costume &amp; fashion design.</p> <p>2.3.1 Structural designs- darts, tucks, pleats.</p> <p>2.3.2 Decorative designs- prints, trims, embellishments.</p>	06	10

<b>Unit-3</b>	<b>Fashion &amp; Clothing Terminologies</b> 5.1 Clothing concept: Definition & principles, Objectives of clothing technology. 5.2 Clothing terminologies- baggies, bell- bottom, blazer, blouse, bow, ties, circle skirt, drapes, innerwear, jeans, lingerie's, polo shirt, seamless garment, wrap around skirt. 5.3 Fashion terminologies- fashion cycle, contemporary, conservative & continental costumes, surfer look, masculine, mod looks, formal wear, casual wear, classic, ethic, city wears, boutique, haute-o-couture, prêt –a-porter, mass production.	06	10
<b>Unit-4</b>	<b>Product categorization</b> 4.1 Textiles 4.2 Accessories/lifestyle products, Leather goods and footwear 4.3 Apparel - Menswear/Womenswear/Kidswear 4.4 Trims and Accessories for the Fashion Industry 4.5 <b>Various categories of menswear, womenswear and childrenswear</b> 4.5.1 Menswear – shirt, trousers, formal jackets suit and sporty suit 4.5.2 Womenswear – dresses, blouses, skirts, trousers, kameezes, saris and blouses 4.5.3 Kids wear – categories of children for 0 – 15 years and various garments like frocks, skirts, blouses, trousers, dungarees, jackets etc. 4.5.4 <b>Sizing Systems</b> 4.5.5 Standard Measurements 4.5.6 Standard Sizing 4.6. Age group relationship to design.	09	15
	<b>Total</b>	<b>33</b>	<b>70</b>

### List of Recommended Books

S. No.	Title of Books	Author	Publication
1	Traditional Indian Costume and Textile	Dr. Parul Bhatnagar	Abhishek publication, Chandigarh
2	Indian Textiles	John Gillow & Nicholas Barnard	
3	Textile and embroidery of India	John Irvin	Marry Publications, Bombay.
4	Elements of fashion and design	Lehnert Gertrud	West Duxbury Manchesters. 1995
5	Inside the fashion business	Kitty G. Dickerson	Person Education Pvt. Ltd. Singapore. 2004

## SOFTWARE SKILLS

<b>Subject Code</b> <b>2042302</b>	<b>Theory</b>			<b>No of Period in one session: 50</b>			<b>Credits</b>  <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:** Computers play a vital role in present day life, more so, in the professional life of any student. In order to enable the students to use the computers effectively in Design software's, this course offers the modern-day skills along with graphics application in design.

**Objective:** The objectives of this course are to make the students enable to:

- Effectively learn how to use Photoshop, Corel Draw and Illustrator for editing skills
- Use the various toolboxes and colour changing techniques.
- Photo editing skills

### **CONTENTS : THEORY**

<b>Name of the Topic</b>		<b>Hrs</b>	<b>Marks</b>
<b>Unit -1</b>	Photo shop: Layers blending modes, transform tools masking image adjustment Layers styles clone Stand filters changing canvas size, use rulers and guides inverse selection feather creating a new layer.	<b>11</b>	
<b>Unit -2</b>	<b>Corel draw</b>  Works Space and fonts, using the tool box, using the color, Drawing and Editing objects using a template, Vector effects <b>RGB CMYK colors</b> , adding 3-D Effects to text and objects	<b>11</b>	
<b>Unit -3</b>	<b>Adobe Illustrator</b>  Pen tool, master clipping masks, path finder panel shape builder tool shape mode appearance panel how to use brushes layers, swatch library, pattern options, textures	<b>11</b>	

## TEXTILE SCIENCE

<b>Subject Code 2042303</b>	<b>Theory</b>			<b>No of Period in one session: 42</b>			<b>Credits  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:** Rapid changes and progress in textile industry has led to the advancement in the fabrics selected for manufacturing garments. Manufacturing of fiber and textiles for apparel, household and industrial use has great business opportunity. This course on Textile Science provides in-depth knowledge on different fibres available in the market, its mechanical production or engineering of fibres, the chemistry and physics involved in producing and testing fibres, principles of dyeing, printing and its operations, materials, equipment and process. This course will provide sound foundation for students undertaking course in costume designing and garment making.

**Objectives:** Students will be able to:

1. Select suitable textile fibres for a given application on the basis of physical and chemical properties.
2. Explain the characteristics of different types of fabrics based on type of yarn, weaves and other fabric construction processes.
3. Select appropriate dyes and printing method for given textile fibre and fabric respectively.

### **CONTENTS: THEORY**

	<b>Name of the Topic</b>	<b>Hrs</b>	<b>Marks</b>
<b>Unit-1</b>	<b>Introduction</b> 1.1 Terms and definition: Textile, Textile Science, Fibres, filaments, yarns ( spun yarns, filament yarns), sewing threads, Fabrics (woven, knitted, non-woven, etc.), Garment. 1.2 Importance of textile science in our life.	02	05
<b>Unit-2</b>	<b>Textile fibres</b> 2.1 Introduction and classification of textile fibres. 2.2 General fiber properties 2.3 Brief introduction about manufacturing processes, physical & chemical properties, their suitability in garment of following textile fibres: Cotton, Silk, Wool, Polyester, Viscose rayon, Acrylic, Nylon. 2.4 Identification of important textile fibres (Feeling and burning test).	10	15
<b>Unit-3</b>	<b>Yarns</b> 3.1 Brief outline of the process involved in the conversion of fibres into yarn. 3.2 Different types of yarn, their properties and suitability for garment. 3.3 Yarn twist. 3.4 Yarn count (definition, unit of yarn count, system of yarn count).	06	10

<b>Unit-4</b>	<p><b>Conversion of yarn into fabric</b> 4.1 Definition, objectives and principles of various methods of fabric formation – weaving, knitting, non-woven. End use of fabrics produced by these methods.</p> <p><b>4.2 Woven Fabric</b> 4.2.1 Basic loom, loom mechanisms and function of its various parts, warp &amp; weft yarns. <b>4.2.2 Woven design fundamentals:</b> Introduction, classification of woven structures, methods of weave representation, weave repeat, basic elements of woven design, types of draft plan and denting plans. Basic weaves and its modification (Plain weave, Twill weave, Satin and weaves). Brief idea about decorative weaves. Draft and peg-plan of weave.</p>	12	20
<b>Unit-5</b>	<p><b>Chemical Processing of Textile</b> 6.1 Introduction to various wet-processing treatments such as singeing, desizing, scouring, bleaching, mercerization.</p> <p><b>6.2 Dyeing:</b> Dyes &amp; its classification, Principles &amp; Properties of dyes, Application of natural and Synthetic dyes on different fibres and their blends. Different dyeing techniques. Introduction to dyeing machinery. Defects in dyeing and their remedies.</p> <p><b>6.3 Textile Printing:</b> Introduction, Difference between dyeing and printing. Methods of Printing such as Block Printing, Stencil Printing, Screen Printing, and Roller printing. Styles of Printing: Direct style of Printing, Resist style of Printing. Tie &amp; dye, Batik Printing, Discharge style of Printing.</p> <p><b>6.4 Finishing of fabrics:</b> Principle of finishing of natural, man-made fibres and blended fabrics. Wash-n-wear, crease-resistant anti-shrink, water-repellent, rot and mildew proofing, flame-proofing finishes, etc.</p>	12	20
	<b>Total</b>	<b>42</b>	<b>70</b>

List of Recommended Books:-

S. No.	Title of Books	Author	Publication
1	Textile science	Marjery Joseph.	Holt rinechart and wiston 1992
2	Introductory textile science	Marjory L. Joseph	
3	Textiles Fiber to Fabric	Bernard P. Corbman	McGraw-Hill Book Co.–Singapore- International Edition
4	Fundamentals of textiles and their care.	Sushila Dantiyagi.	Orient blackswan pvt.ltd.2012
5	Modern textile	Do rothy S. Lyle.	Mcmillan publishing.co. 1982
7	Dyeing and Synthetic fabrics	R.S Paryag.	
8	Technology of Dyeing	V.A Shenai	Sevak Publishers, Mumbai.

# VISUALIZATION & REPRESENTATION

<b>Subject Code 2042304</b>	<b>Theory</b>			<b>No of Period in one session : 42</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>ESE</b>	<b>:</b>	<b>70</b>	
	<b>03</b>	<b>—</b>	<b>—</b>	<b>TA</b>	<b>:</b>	<b>10</b>	
				<b>CT</b>	<b>:</b>	<b>20</b>	

**Rationale:** This course is designed to develop artistic aptitude in students in order to sustain in the field of garment/fashion design. It helps in developing the basic foundation that are essential for costume design and garment making.

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

1. Understand & develop different elements of art.
2. Apply elements and principles of design for structural and applied design.
3. Learn different colour harmonies & use the colours as per the need of designing.

## **CONTENTS: THEORY**

	<b>Name of the Topic</b>	<b>Hrs</b>	<b>Marks</b>
<b>Unit-1</b>	<b>Introduction</b> 1.1 Drawing tools & material, Sketching tools and material. 1.2 <b>Elements of Costume:</b> 1. Necklines & Collars, 2 Sleeves & Cuffs, 3 Skirts & Pockets. 1.3 Silhouette: Concept, Definition, Types of silhouette with their features.	05	10
<b>Unit-2</b>	<b>Element of Art &amp; design.</b> 2.1 Line: Concept, definition, Types of lines, Line movements, Aspects of line, its physical and psychological effects on human figure. (Horizontal, Vertical, Diagonal, Curve, Zigzag) 2.2 Space: Definition, Cues influencing perception of shape and space, physical and psychological effect of space. 2.3 Shape and form: Definition, different types, Attributes of shape and form. 2.4 Texture: Definition and concept of texture, Types of textures, Psychological and physical effect of Texture. 2.5 Colour: Concept, definition, psychological and physical effects of colour, Primary, secondary and tertiary colour, neutral colour. Dimension of colour (Hue, Value & Intensity), Colour wheel, Selecting colours, Using of colours, Colour schemes, Qualities of colour.	14	20
<b>Unit-3</b>	<b>Principles of Art &amp; design.</b> 3.2 Harmony (Unity)— Definition, concept, effects (physical & psychological). 3.3 Balance - Definition, concept, types of balance, physical & psychological effects of balance. 3.4 Emphasis - Definition, concept, physical & Psychological effects of emphasis. 3.5 Proportion (Scale)- Definition, concept, physical & psychological effects of proportion. 3.6 Repetition- Definition and physical & psychological effects of repetition. 3.7 Parallelism- Definition and effects of parallelism. 3.8 Sequence- Definition and effects of Sequence. 3.9 Alternation- Definition and effects of Alternation. 3.10 Gradation- Definition and effects of Gradation. 3.11 Transition- Definition and effects of Transition. 3.12 Radiation - Definition and effects of Radiation. 3.13 Rhythm- Definition and effects of Rhythm. 3.14 Concentricity- Definition and effects of Concentricity. 3.15 Contrast - Definition and effects of Contrast.	14	25

<b>Unit-4</b>	<b>Elements of Colour</b> 3.1 Introduction, Fundamental basis of colour, Theories of colour (Light theory and Pigment theory of colour), Visual effects of various colours. 3.2 Modification of colours - concept, need & requirements. 3.3 Colour Contrast and Colour Harmony – Concept, Need & Requirements, and Different types.	05	10
<b>Total</b>		<b>42</b>	<b>70</b>

#### **List of Recommended Books**

<b>S. No.</b>	<b>Title of Books</b>	<b>Author</b>	<b>Publication</b>
1	Visual design in dress	Marian L Devis.	Prentice-hall, Inc.
2	Individuality in clothing selection	Mary Kefgan	M/c Milan
3	Colour and line in dress	Hemstead	Lawrance Prantice Hall
4	Fashion design illustration-Men	Patrick John Ircland	B.T. Batsford Ltd. London
5	M/c calls' Sewing in colour	Hamlyn	Hamlyn
7	How you look and dress?	Byrta Carson	Mc graw hill book co.1949

# CLOTHING CONSTRUCTION

<b>Subject Code 2042305</b>	<b>Theory</b>			<b>No of Period in one session: 42</b>			<b>Credits  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:** There are various types of garments available in the market. Students should know the construction of these garments in a systematic way. This course will provide sound foundation for garment manufacturing techniques and is designed to develop skills in students related to body measurements using appropriate tools, sewing by non-automatic machine, application of appropriate constructional stitches, and preparation of fabric for clothing construction.

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

- i. Prepare the garment as per measurement using appropriate tool, machine and technique.

## CONTENTS: THEORY

UNIT	Name of the Topic	Hrs	Marks
<b>Unit-1</b>	<p><b>Non-Automatic tools for garment manufacturing</b></p> <p><b>1.1 Measuring Tools:</b> Function, use and care of the following tools: Measuring tape, Tailor's square, Right angled triangle, Calculator, French curve Set, Set square, Curve Rules.</p> <p><b>1.2 Marking tools:</b> Function, use and care of the following tools: Paper, Pencil, Fiber pens, Rubber, Compass, Tracing wheel, Pins, Tailor's chalk, Pattern notcher, Pattern punch, Pattern books, Pattern weights, Model stands.</p> <p><b>1.3 Cutting tools:</b> Function, use and care of the following tools: Small shears, Big shears, Cutters, Pinking shears, Stitch opener.</p> <p><b>1.4 Sewing tools:</b> Function, use and care of the following tools: Bobbin &amp; Bobbin case, Machine sewing needles, Hand sewing needles.</p> <p><b>1.5 Miscellaneous tools:</b> Function, use and care of the following: Thimble, Pin cushions, Thread, Ironing board, Iron, Bobbin winder.</p>	07	10
<b>Unit-2</b>	<p><b>Sewing Machine</b></p> <p>3.1 History of sewing machine</p> <p>3.2 Types of sewing machine</p> <p>3.3 Parts and functions of sewing machine</p> <p>3.4 Operation of sewing machine</p> <p>3.5 Care &amp; maintenance of sewing machine</p> <p>3.6 Problems of stitch formation, problems of pucker and problems of damage to the fabric along the stitch line.</p> <p>3.7 Sewing area.</p>	08	12
<b>Unit-3</b>	<p><b>Body Measurement</b></p> <p>4.1 Knowledge of various landmarks on the body, required for making garments.</p> <p>4.2 Techniques of taking body measurements.</p> <p>4.2.1 Directly from the body.(Vertical &amp; Horizontal)</p> <p>4.2.2 Indirectly form the readymade garments.</p> <p>4.2.3 From standard size charts.</p> <p>4.2.4 Technique of calculating all the measurements from chest measurement.</p>	04	07
<b>Unit-4</b>	<p><b>Fabric</b></p> <p>5.1 Fabric widths,</p> <p>5.2 Grain lines</p> <p>5.3 Preparation of fabric for clothing construction: Straightening, Tearing, Shrinking.</p> <p>5.4 Different types of fabrics and its application in clothing.</p>	04	05

<b>Unit-5</b>	<b>Clothing Construction</b> <b>6.1 Hand stitches</b> 6.1.1 Basting: Even basting, Uneven basting. 6.1.2 Running stitch 6.1.3 Different types of hemming stitches: Blind hemming stitch, Simple hemming stitch. <b>6.2 Machine stitches:</b> <b>6.2.1</b> Plain Seam, Curved Seam, Cornered, To join an inward corner, Trimming, To trim corner, Clipping, Hand overcast, Zigzagged, Bias bound, Net bound, French seam, Flat felled seam, Self-bound seam, Corded seams, Lapped seams, Fagotted seam, Double top stitched seam, Welt seam, Tuck seam, Slot seam. 6.2.2 Seaming special fabrics (Velvet, Net, Georgette). 6.2.3 Fullness techniques: Darts, Tucks, Pleats, Gathering, Shirring, Smocking, Ruffles.	07	14
<b>Unit-6</b>	<b>Fullness techniques</b> 8.1 Definition of fullness 8.2 Techniques of controlling fullness through different varieties of darts, tucks, pleats, gathers, shearing, smocking and ruffles.	03	05
<b>Unit-7</b>	<b>Use of components</b> 9.1 Knowledge of various components such as lace, braid, elastic, hook and loop fastening, Velcro, seam binding and tape, eyelets, zip fasteners, buttons, tack buttons, snap fasteners and rivets.	01	05
	<b>Total</b>	<b>42</b>	<b>70</b>

### List of Recommended Books

S. No.	Title of Books	Author	Publication
1	Macall's sewing in colour	Hamlyn	Hamlyn
2	Singer sewing Book	Glady Cuning	Golden Pr
3	Complete guide to sewing		Reader digest
4	Clothing construction	Evelyn A. Mansfield	Houghton miffin 1953
5	The technology of clothing manufacture	Harold Carr and Barbara Latham	John Wiley & sons. 1994
6	The Art of Sewing	Thomas (anna jacob)	UBS Publication distributer Ltd.
7	Home dress making	Isabel Sutherland Ed	Pan Craft Book

## SOFTWARE SKILLS LAB

<b>Subject Code</b> <b>2042306</b>	<b>Practical</b>						<b>Credits</b>
	<b>No. of Periods Per Week</b>			<b>Full Marks</b>	<b>:</b>	<b>50</b>	<b>03</b>
	<b>L</b>	<b>T</b>	<b>P/S</b>	<b>ESE</b>	<b>:</b>	<b>50</b>	
	—	—	<b>06</b>	<b>Internal</b>	<b>:</b>	<b>15</b>	
				<b>External</b>	<b>:</b>	<b>35</b>	

**Rationale:** Computers play a vital role in present day life, more so, in the professional life of any student. In order to enable the students to use the computers effectively in Design software's, this course offers the modern-day skills along with graphics application in design.

**Objective:** The objectives of this course are to make the students enable to:

- Effectively learn how to use Photoshop, Corel Draw and Illustrator for editing skills
- Use the various toolboxes and color changing techniques.
- Photo editing skills

**Eight experiments to be performed in the laboratory:**

### **Contents : Practical**

List of Experiment: -		<b>Hrs</b>	<b>Marks</b>
<b>Unit -1</b>	Photoshop		
<b>Unit-2</b>	Corel draw.		
<b>Unit-3</b>	Adobe Illustrator.		
	<b>Total</b>		

## **VISUALIZATION & REPRESENTATION LAB**

<b>Subject Code</b> <b>2042307</b>	<b>Practical</b>			<b>No of Period in one session: 60</b>			<b>Credits</b>  <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>ESE</b>	<b>:</b>	<b>50</b>	
	—	—	<b>04</b>	<b>Internal</b>	<b>:</b>	<b>15</b>	
				<b>External</b>	<b>:</b>	<b>35</b>	

### **CONTENTS:PRACTICAL**

	<b>List of Experiment</b>	<b>Hrs</b>	<b>Marks</b>
<b>Unit-1</b>	<b>Prepare given types of drawing by hand</b> 1.1 Nature drawing. 1.2 Object drawing. 1.3 Free hand drawing. 1.4 Memory drawing.	04	
<b>Unit-2</b>	<b>Calligraphy writing by hand (All alphabet).</b> 2.1 Gothic letters.	12	
<b>Unit-3</b>	Effect of different types of line. (Types as per the theory portion.)		
<b>Unit-4</b>	<b>Shape.</b> 4.1 <b>Prepare the sheet showing following equal sided flat shapes by hand</b> 4.1.1 Square, Circle, Equilateral Triangle, Pentagon, Hexagon, Octagon. 4.2 <b>Prepare the sheet showing following Unequal sided flat shapes manually</b> 4.2.1 Rectangle, Parallelogram, Heart, Diamond, Teardrop, Marquis, Ogive, Star, Paisley, Club, Spade, Pear, Kidney.	12	
<b>Unit-5</b>	Preparation of the sheets showing shapes that fit snugly together (6.1 to 6.6) and the shapes that don't fit together but create other shapes between them (6.7 to 6.10) (Do it by hand) 5.1 Squares, Hexagon, Ogives, Diamonds, Triangles, Paisleys in to the circle, Octagon, Star, Circle, Square & Rectangle, Squares	02	
<b>Unit-6</b>	<b>Form.</b> (Do it by hand) 6.1 Preparation of sheet showing Equal sided three-dimensional form 6.1.1 Sphere, Cube 6.2 Preparation of the sheet showing Unequal sided three-dimensional forms. 6.1.1 Cylinder, Cone, Pyramid, Box, Bell, Dome, Ovoid, Barrel, Hourglass, Trumpet.	05	
<b>Unit-7</b>	Preparation of sheet showing following Textures. (Any medium) 7.1 Rough texture, 7.2 Smooth texture, 7.3 Transparent	02	
<b>Unit-8</b>	<b>Principles of design</b> <b>8.1 Preparation of sheet showing the effect of Balance in following areas manually.</b> 8.1.1 Balance in line path, space, space & shape, value, texture, pattern. <b>8.2 Preparation of the sheet showing Emphasis in relation to the elements of design manually.</b> 8.2.1 Emphasis of line thickness, shape, form, space, light, texture, pattern. <b>8.3 Preparation of sheets showing Rhythm and its relationship with elements of design manually.</b> 8.3.1 Rhythm in line – Wavy, Zigzag, Single, Swirled, Jagged. 8.3.2 Rhythm in shape – Saw tooth, Diamond, Undulating. 8.3.3 Rhythm in pattern <b>8.4 Preparation of sheets showing the effect of radiation in relation to elements of design manually.</b> 8.4.1 Radiation in line & space, shape & space, Pattern, Radiation from an axis. <b>8.5 Preparation of sheets showing the effect of Transition in relation to elements of design manually.</b>	11	

<b>Unit-9</b>	Reducing and Enlargement of design.	03	
<b>Unit-10</b>	To prepare Structural and Applied design on sheet by hand.	03	
<b>Unit-11</b>	<b>Colour.</b> 11.1 Preparation of sheet showing colour wheel. 11.2 Preparation of sheet showing tints and shades. 11.3 Preparation of sheet showing colour schemes with reference to theory.	06	
	<b>Total</b>	<b>60</b>	

## CLOTHING CONSTRUCTION LAB –I

<b>Subject Code</b> <b>2042308</b>	<b>Practical</b>			<b>No of Period in one session:</b>			<b>Credits</b>  <b>01</b>		
	<b>No. of Periods Per Week</b>			<b>Full Marks</b>				<b>:</b>	<b>50</b>
	<b>L</b>	<b>T</b>	<b>P/S</b>	<b>ESE</b>				<b>:</b>	<b>50</b>
	—	—	<b>02</b>	<b>Internal</b>				<b>:</b>	<b>15</b>
				<b>External</b>				<b>:</b>	<b>35</b>

### CONTENTS : PRACTICAL

	<b>List of Experiment</b>	<b>Hrs</b>	<b>Marks</b>
<b>Unit-1</b>	Prepare a labeled outline diagram of sewing machine.		
<b>Unit-2</b>	Take body measurement of another person and note it in the file.		
<b>Unit-3</b>	Prepare sample of hand stitches (covered in theory) on given fabric.		
	Prepare samples of machine stitches (covered in theory) on given fabric.		
<b>Unit-4</b>	Prepare samples of neck line finishing using piping and shape facing (any three)		
	To make samples of pockets (Patch, side and cut)		
<b>Unit-5</b>	Prepare samples of fullness technique (Simple dart, fish dart, vertical tuck, horizontal tuck, knife pleat, box pleat, inverted box pleat, gathering by hand and machine, smocking, and ruffles)		
<b>Unit-6</b>	Fix components such as zip, button and button hole, hook and eye and Velcro as directed on given garment		
	<b>Total</b>		

## DESIGN CONCEPTS & DETAILS -TW

<b>Subject Code</b> <b>2042309</b>	<b>Term Work</b>			<b>No of Period in one session: 60</b>			<b>Credits</b>  <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</b>	<b>:</b>	<b>23</b>	
	—	—	<b>04</b>	<b>External</b>	<b>:</b>	<b>52</b>	

**RATIONALE:** This course will provide hands on experiences to students specifically related to design concepts associated with Clothing construction, Art and design and Textile science. The content covered in the courses of Clothing construction, Art and design and Textile science help the students in carrying out the design aspects through illustration. Students will be able to learn through this course about structural designs, applied design and the drape of the fabric.

Objectives: The students will be able to:

- i. Illustrate different types of design effects required for costume design and dress making by drawing and sketching.

### CONTENTS : TERM WORK

<b>List of Term Work</b>		<b>Hrs</b>	<b>Marks</b>
<b>Unit-1</b>	1.1 Draw different types of darts.	04	
	1.2 Draw different types of tuck.	04	
	1.3 Draw different types of pleats: Accordion or Crystal, Knife pleats, Box pleats, Inverted box pleats.	04	
	1.4 Draw different types of Ruffles: Circular ruffles, Straight ruffles	04	
	1.5 Draw different types of Trimmings Top stitching, Tucking, Fagotting, Insertion, Shirring, Braiding, Cording, Rick-rack, Bias binding, Quilting, Smocking, Ribbon, Laces, Edging, Eyelet, Plaiting.	10	
<b>Unit-2</b>	2.1 Draw different types of buttons, Placket's openings.	05	
<b>Unit-3</b>	3.1 Sketching Stripes, Checks or Plaids.	02	
	3.2 Draw following Fabric falls and drapes Crape, Soft and Sheer, Lace, Tulle and net, Organdies, Satin, Velvet, Taffeta.	04	
	3.3 Draw following Textures and Patterns: Diagonal, Herringbone, Basket weave, Glen plaids, Corduroy.	04	
<b>Unit-4</b>	4.1 different types of motifs. (5 Motifs each)	15	
	4.2 Natural Floral motifs Animal motifs Geometric Design Abstract Design Man-made motifs Decorative motifs Design Polka dot Design		
<b>Unit-5</b>	5.1 Sketch only outline of different types of faces such as round, oval, triangular, square and basic drawing of hand with fingers.	04	
<b>Total-</b>		<b>60</b>	

## PYTHON / OTHERS -TW

<b>Subject Code 2000310</b>	<b>Term Work</b>			<b>No of Period in one session:</b>			<b>Credits  01</b>	
	<b>No. of Periods Per Week</b>			<b>Full Marks</b>				<b>: 25</b>
	<b>L</b>	<b>T</b>	<b>P/S</b>	<b>Internal</b>				<b>: 07</b>
	—	—	<b>02</b>	<b>External</b>				<b>: 18</b>

<b>CONTENTS</b>		<b>Hrs.</b>	<b>Marks</b>
<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. 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. 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. 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 Write a Python program to Get number of characters, words.		
<b>UNIT – 10</b>	Write a Python program for Linear Search		