

ABOUT THE COURSE

Profession related to clothing and apparel is one of the oldest and most basic occupations of human beings, with a rich and varied past. Fashion has become an integral part of contemporary society. It is one of the focal topics of the print and electronic media, television, internet, advertisements, music, movies and marketing etc. Hence a fashion related study is a key driver for several opportunities in many industries related to apparel, accessories, textiles, automobiles, films and advertisement etc.

India is known for its rich heritage of textiles and costumes. The global interest and demand for Traditional Indian textiles and craftsmanship has aroused a huge opportunities in the field of fashion and apparel industry for domestic market and export. Production of textiles and garments for Indian as well as international markets led to setting up of manufacturing and export units all over the country. Indian Fashion and Apparel Industry is spreading and growing by leaps and bounds providing employment to over a million people. Skilled and trained professionals are required by these units largely.

Professional in this area is mostly employed by wholesale or manufacturing outlets, where garments are typically created for mass production. In these settings, they tend to work as full or part-time members within a team. A number of apparel designers are self employed; they often create custom clothing and can work unusual hours to meet clients' needs.

In response to such a scenario the course Fashion and Apparel Designing is being introduced at Vocational Higher Secondary Schools as an independent course in the vocational stream. Fashion and Apparel Design, as profession includes the entire process of designing and producing fashion apparels from the fibre and yarn stage to the finished product. This course offers skill in designing, construction and ornamentation of garments. It develop the students' skill in all aspects of fashion and apparel design such as pattern making, draping, sewing, finishing of garments, embroidery and other value addition techniques , marketing, merchandising etc. Students develop a fashion portfolio at the end of the course. They can undertake fashion projects from the initial stage to the finished garment. They are imparted the skills to manage a boutique also.

Fashion Studies help the students to develop self confidence by improving their skill in selection and making of their own clothes. This course gives more importance to self employment, thereby increasing the living standard of a person as well as his community. It also helps students to make an informed decision about their future goals.

JOB ROLES

Fashion designing is one of the most lucrative, appealing, glamorous and exciting career options in today's world. According to a recent study, India's Fashion Designing Industry aims to grow to Rs. 1000 crores from the current of Rs. 180 crores with in the next 5-10 years. In such a situation the job roles identified for a student of 'Fashion and Apparel Designing' are:

GOVT/ SEMI GOVT /PRIVATE SECTOR	SELF EMPLOYMENT
<ul style="list-style-type: none"> • Lab Technical • Assistant in VHSE • Skilled Workers in different garment industrial units. • Sewing Machine Operator • Cutting Assistant • Tailoring Assistant • Textile Dyeing Assistant • Quality Checker (In- process & Finished Goods) • Garment Ornamentation Expert • Pattern Maker • Apparel Designer • Fashion Illustrator • Instructor in Educational Institutes 	<ul style="list-style-type: none"> • Pattern Maker • Fashion Consultant • Apparel Designer • Costume Designer • Managing Small scale Garment Manufacturing Unit • Managing Small scale Embroidery Unit • Event Manager (Fashion Shows) • Boutique Manager

SUBJECT APPROACH

In our civilization textiles and apparels have become "necessities of life" as they provide in a major way for man's clothing and for many sundries concerned with his shelter and protection. Apparels not only protect us from the vagaries of nature but also an asset to our personality. They are the means by which one can express his relative ability, inherent beauty and charm. It also reflects self acceptance and self-esteem. The growth of fashion and apparel industry during last ten years shows its importance in our day to day life. A proper knowledge and acquisition of skills in this field help a person to improve his personal as well as career opportunities.

Aims & objectives

- To develop an interest in the field of 'Fashion and Apparel'
- Designing of garments appropriate for different age and occasion - Fashion and Costume Designing
- To enable the students to be self-employed.

- Open a way to find a suitable career in Fashion and Textile Industry through skill developments in different areas.
- Cultivate eco-friendly attitude.
- Use the skills for social welfare.
- Improve socio-emotional values of learner.
- Improve standard of living by getting livelihood during the studies.

Learning Approach

- The learning process has to be learner centred, activity oriented and enabling learners to acquire skills and efficiency.
- It should help to adequate more operational skills based on previous knowledge and experience.
- It should assimilate the up-to-date technological developments in the field of Fashion & Apparel Designing
- Learning approach shall enable the learner to develop multiple intelligence.
- It should enable the learner think rationally and creatively and taking decisions accordingly.
- It should build self-confidence and co-operative nature in the learner.

Learning Environment

Learning environment refers to the diverse physical locations, contexts, and cultures in which students learn. Students learn in a wide variety of settings such as class rooms, outside-of-school locations and outdoor environments. Learning environments have both a direct and indirect influence on student learning, including their engagement in what is being taught, their motivation to learn, and their sense of well-being, belonging and personal safety.

A classroom or schoolroom is a room in which classes are held in educational institutions. The class room should be designed to keeping in mind the interest and development of learner so as to ensure his/her participation in various learning activities. Every activity should be learner oriented. The freedom to employ suitable learning strategies which are learner centred and activity based taking into consideration the development and growth in the learning ambience rests with the teacher.

Laboratory provides a hands-on learning environment for students. Students must learn designing, pattern making and garment construction skills in Patternmaking / Stitching Laboratory using

sewing machines and equipments. Opportunities must be provided for students to practice with each other under close supervision by faculty. Tools and equipment in the learning lab must be same as the equipment currently in use at concerned industry where students have placements.

Community also provides hands on learning opportunities for students. This includes conducting exhibitions and shows, training classes for self help groups. Exhibitions / Shows give the students an environment to express their talents publically which is very much essential for the field of fashion.

Teaching Learning Strategies

The Kerala School Curriculum - 2013 focussed on child centred, process related, activity oriented and value based approach. It laid stress on the learning outcomes at the cognitive, process, attitudinal and value domains. The teacher has the freedom to employ logical and variegated learning strategies during the transaction process. It gives importance to ensuring the learning outcomes to all learners. Based on these learning outcomes continuous and comprehensive evaluation is recommended. The curriculum also lays emphasis on the code of professional ethics for teachers.

With regard to learning process the following points are given importance.

1. The learners relate their previous knowledge to the knowledge they newly construct.
2. Knowledge construction has to be at the individual and community levels.
3. The differential needs of the learners are to be addressed by selecting and adapting learning activities.
4. Learning and assessment are complimentary to each other.
5. Learning process should aim at the all round development of the learner.

With all the above ends in view, the learning strategies are so designed and to be implemented. The learning activities proposed are diversified in their nature but is ensured to engage all learners both the gifted as well as the slow pace learners.

In this view the following learning strategies are proposed for transacting the learning outcomes in a learner centred experiential manner in Fashion and Apparel Designing Course.

Discussions: Discussion is a natural part of the transaction between teacher and learner. Discussions help the students to share his findings, ideas and conclusions at each stage of learning process.

Debate: To develop the skill of presenting one's views logically and argue convincingly, debate can be used as an effective strategy for teaching.

Seminars : In seminar the data relating to a specific topic is collected, analysed and presented.

Interviews: This helps to improve student's communication abilities and gets knowledge from a real world.

Survey Projects : Projects are useful method for instruction which develop a number of process skills in the learner. The Stages of a project are :

- Feeling a Problem
- Defining the Aim
- Planning - Hypothesizing, methods & Instruments, Tabulation of data and Conclusion.
- Execution of the project
- Project Report
- Protect Presentation

Assignment (Preparation of charts, models, samples, albums & papers, Collections etc.): Assignments are learning activities helping to achieve the learning outcomes and also lead the pupil from present level to a higher level.

Demonstration: It is also a useful tool used for skill training.

ICT : ICT is an effective tool which help one to collect and exchange new knowledge. Today information and communication technology has an important role in the construction and dissemination of knowledge. This is made possible through gathering of information, analysis and varied presentations. Information communication technology (ICT) and E-learning will enable students of Fashion and Apparel Designing to progress and be equipped with the life-long learning skills required to provide effective working. Through this, it can also be ensured that learners acquire ICT skills.

Class Test / Quiz : Learning tool to assess a learners ability to remember, solve problems, analyze, create etc.

Practical Experiments : This is an effective tool through which the student gets hands on experience to perform experiments.

Field visit : This link learning activities with surrounding environment.

Exhibitions / Fashion shows : These tools can be used very effectively in the course of 'Fashion & Apparel Designing" to improve the students skill for presenting their skill to the community.

Activities under a Fashion & Apparel Club : This is strategy used for imparting co-operative and community learning in students through sharing their knowledge through club activities

Project : Portfolio Development

The teacher has the freedom to employ any suitable strategy to transact a particular content area, provided she/he should ensure that the prescribed learning outcome is achieved by all the learners. Each learning activity should be designed in such a way that there is provision for continuous assessment to promote better learning. There should be slots for assessment as learning and assessment for learning. The learning evidences or learning products should be clearly specified while framing the activities.

Inclusive Education

Inclusive education means that all students attend and are welcomed by their neighbourhood schools in age-appropriate, regular classes and are supported to learn, contribute and participate in all aspects of the life of the school. Inclusive education is about how we develop and design our schools, classrooms, programs and activities so that all students learn and participate together.

There should be provision for catering the academic needs of all children (differently abled children). The parents and society have a crucial role in promoting the level of learning of all children. For this, the teacher should explore all possibilities for utilizing the resources of the community for enhancing better learning of all children.

Fashion and Apparel Designing Course contribute more to the field of inclusive education. There are so many skills that can be excelled by differently abled learners in a Fashion and Apparel Designing Course.

Assessment

Learning is a natural and continuous process. For effective learning, learning experience should be based on specific objectives and learning outcomes. The course exclusively focus on assessment for learning, assessment of learning, assessment as learning, as envisaged in the school curriculum. Assessment ensures efficiency during the process of learning through many interventions made by peers or teachers. This interventions during learning and feedback, forms another phase of assessment. This is called assessment for Learning. Assessment of

learning is the process of assessing the learning outcomes acquired after the transaction of unit. The proficiency of learner and his excellence is evaluated here. There is also a process of correction which involves a critical self analysis of the concepts and awareness gathered through learning. This can be self assessment. Thus learning takes place through self assessment. This can be called assessment as learning. Continuous and Comprehensive Assessment is given due importance as it promotes learning and ensures the achievement of the prescribed learning outcomes by all the students.

SYLLABUS

Module I – Fundamentals of Fashion and Garment Construction

Unit – I : Basic Concepts of Fashion and Apparel Designing

- Apparel & Clothing – Meaning, Importance and functions
- Fashion Concepts & Terminology – Style, Design, Trend, Classics, Fad
- Fashion Cycle
- Factors Influencing Fashion – Economic, Sociological & Psychological
- Fashion & Apparel Industry
- Career opportunities in the field of fashion and apparel designing.

Unit – II : Sewing Tools & Equipments

- Sewing Tools and Equipments
- Measuring Tools – Measuring tape, rulers, L – Scale etc.
- Marking Tools – Marking chalk, pencils, fabric pens, Tracing wheel, French curve, hip curve, hem gauge etc.
- Cutting Tools – Scissors, Shears, Pinking Shears, Thread cutter, Industrial cutting machines etc.
- Stitching Tools – Sewing machine, Needle & Thread, Thimble, Notcher, bodkin etc.
- Pressing tools – Table, pressing pad, iron box etc.

Unit – III : Sewing Machine

- Types – Single Needle Lock Stitch Machines, High Speed Lockstitch Machines, Double Needle Machine, Over lock / Over Edge Sewing Machine, Button Sewing Machine, Buttonhole Sewing Machine, Fusing Machine
- Parts and functions

- Sewing Machine Operation
- Care and maintenance of Sewing Machine
- Minor problems and their rectification
- Special Attachments in Sewing Machines – Tucker, Binder, Ruffler, Hemmer, Zig-zager, Quilter, Zipper foot, Cording Foot , Cloth Guide & Embroidery Plate

Unit – IV : Basics of Garment Construction

- Basic hand stitches – Constructive stitches (Temporary – Even tacking, Uneven & Diagonal Permanent – Running, back stitch, overcastting, hemming, blanket Stitch)
- Seams – Plain Seam, Flat fell Seam, French Seam, Lapped Seam
- Seam Finishes – Pinked Seam finish, Overcastting, Double Stitch Seam Finish, Herringbone Seam Finish, Edge stitch, Bound Seam Edge Finish
- Introducing fullness in Garments – Darts, Tucks, Gathers, Pleats, Flares & Godets.
- Plackets – Continuous & Two piece
- Fasteners – Buttons & Buttonholes, Show buttons & loops, Hook & Eye, Snaps, Zipper & Eyelet hole & cords
- Neckline finishes – Facing & Binding
- Collars – Shirt Collar, Standing Collar, Peterpan Collar
- Pockets – Patch pockets, Set-in pockets & In-seam pockets

Unit – V : Fashion Figure – Sketching

- Introduction & meaning
- Drawing tools and media
- Object and Design Drawing – Freehand drawing and shading of basic shapes and objects using pencil
- Silhouette Sketching – Freehand drawing and shading of basic garment shapes
- Human Figure Drawing

Unit – VI : Elementary Textile Science

- Fiber – meaning, classification
- Characteristics – Cotton, Linen, Silk, Wool, Rayon, Nylon, Polyester & Acrylic
- Fiber Identification (Physical, Microscopic and Burning Tests)
- Yarns – Types (Staple & Filament, Ply, Doubled & Novelty)
- Yarns – Formation, Properties

- Fabric Formation (Weaving – Process & Structure, Felting, Knitting)
- Fabric Construction
- Fabrics defects – Missing warps or wefts, Knots, Slubs, Float, Gout, Hole, Tear, Broken Pattern, Coloured Flecks & Stains
- Fabric Processing – Singeing, Bleaching, Mercerizing, Calendaring, Waterproofing, Printing & Dyeing

Module II – Garment Ornamentation Techniques

Unit – I : Introduction to Garment Ornamentation

- Garment ornamentation – Meaning, importance and types
- Embroidery – Types (Hand & Machine)
- Embroidery – Tools and equipments
- Design transferring methods – Direct, Carbon, Running, Pricking or Pouncing & Hot iron transferring method.

Unit – II : Hand & Machine Embroidery

- Hand Embroidery Stitches – Classification and Use
- Outline stitches – Running Stitch, Back Stitch & Stem Stitch
- Chain stitches – Chain Stitch, Lazy – daisy & Feather Stitch
- Filling stitches – Satin Stitch, Long and Short Stitch & Fishbone Stitch
- Knot stitches – French Knot & Bullion Knot
- Marking stitches – Cross Stitch & Star Stitch
- Border stitches – Blanket Stitch, Buttonhole Stitch & Herringbone Stitch,
- Machine Embroidery – Parts, functions and operation

Unit – III : Creative Ornamentation Techniques

- Traditional Embroidery of India
- Appliqué work – Overlaid & Inlaid
- Cut work – Simple & Venetian
- Shadow Work
- Scalloping
- Quilting
- Mirror Work
- Smocking – Stem & Cable stitch
- Kamal work
- Kantha work

- Kasauti work
- Zardosi work
- Crochet – Tools & Materials & Stitches

Unit – IV : Fashion Figure – Colouring

- Introduction & meaning
- Painting – Tools and medium
- Colour – Colour Wheel & Colour mixing
- Painting and shading – Basic shapes and objects
- Painting and shading – Silhouette of skirts, sleeves, frocks etc.

Unit – V : Textile Dyeing

- Dyeing – meaning,
- Dyeing Methods – Fiber Dyeing, Yarn Dyeing, Fabric Dyeing & Garment Dyeing
- Dyes and Pigments – Definition
- Dyes and Pigments – Classification, (Natural & Synthetic Dyes.), Advantages and Limitations of Natural & Synthetic Dyes.
- Dyeing of bleached fabric with reactive dye.
 - Materials required
 - Deciding the shade
 - Dye bath preparation
 - Dyeing procedure
 - After treatment

Unit – VI : Textile Printing & Fabric Painting

- Textile printing – Meaning, Distinguishing features.
- Textile Printing – Styles (Direct, Discharge & Resist)
- Textile Printing – Methods (Block, Roller, Duplex, Stencil, Screen, Tie and dye & Batik)
- Block Printing
 - Material required
 - Preparing dye paste
 - Printing process
- Stencil Printing
 - Material required
 - Preparing dye paste
 - Printing process

- Screen Printing
 - Material required
 - Preparing dye paste
 - Printing process
- Tie & Dye
 - Material required
 - Preparing the fabric
 - Preparing dye bath
 - Tying and dying process
- Batik
 - Material required
 - Preparing the fabric
 - Preparing dye bath
 - Dyeing process
 - Removing wax
- Fabric Painting – Meaning
 - Materials Required
 - Fabric Painting – Factors to be Considered

Fabric Painting – Methods (Outlining, Filling, Shading, Double Colour Shading, Dot Painting, Stroke painting & Free hand painting)

LEARNING OUTCOMES

Upon the completion of the first module the learner will be able to:

- 1.1.1. Understand and explain the meaning, importance and functions of clothing and apparel.
- 1.1.2. Familiarize with fashion concepts and apply them in the daily life.
- 1.1.3. Analyzes various factors influencing fashion.
- 1.1.4. Identify various segments of the fashion industry and its auxiliary branches.
- 1.1.5. Explain the different activities carried out in manufacturing garments, in an industrial unit.
- 1.1.6. Identify the duties and skill requirement of different careers in apparel industry.
- 1.1.7. Recognize career opportunities in the field of fashion and garment industry.

- 1.2.1 Identify the different tools and equipments used in garment construction.
- 1.2.2 Identify different measuring tools and their application.
- 1.2.3 Identify different marking tools and their application.
- 1.2.4 Identify different cutting tools and their application.
- 1.2.5 Identify different stitching tools and their application.
- 1.2.6 Identify different pressing tools and their application.

- 1.3.1 Distinguish different sewing machines used in garment industry and their use.
- 1.3.2 Identify and explain the sewing machine parts and their functions.
- 1.3.3 Carry out minor setting and operate sewing machine scientifically.
- 1.3.4 Use and maintain the sewing machine properly.
- 1.3.5 Identify the common troubles occurring while stitching and rectify them.
- 1.3.6 Identify the special attachments used in sewing machines.
- 1.3.7 Describe the use of special sewing machine attachments.
- 1.3.8 Use special attachments in garment construction.

- 1.4.1. Recognize the different hand stitches used in garment construction and their use.
- 1.4.2. Select and effectively use the basic hand stitches in construction process.
- 1.4.3. Compare the different seams and seam finishes.
- 1.4.4. Choose the proper seam and use them in correct places during garment construction.
- 1.4.5. Identify and compare the different methods of introducing fullness in garments.
- 1.4.6. Select and use the appropriate method to introduce fullness in garments.
- 1.4.7. Identify and compare the different types of plackets.
- 1.4.8. Select and use the appropriate plackets in construction.
- 1.4.9. Identify and compare the different types of fasteners.
- 1.4.10. Select and use the appropriate fastener in construction.
- 1.4.11. Identify and compare the different types of neckline finishes and collars.

- 1.4.12. Select and use the appropriate neckline finishes and collars in construction.
 - 1.4.13. Identify and compare the different types of pockets.
 - 1.4.14. Select and use the appropriate pockets in construction.

 - 1.5.1. Describe the meaning of fashion figure illustration.
 - 1.5.2. Create and interest in fashion sketching.
 - 1.5.3. Recognize the use of drawing tools and media, and handle them appropriately.
 - 1.5.4. Draw the basic shapes and objects through free hand movements.
 - 1.5.5. Sketch different types of designs - geometrical, abstract, and decorative, with fruits and flowers, birds, animals, etc.
 - 1.5.6. Visualize and draw garment shapes.
 - 1.5.7. Understand and explain the anatomy of human figure.
 - 1.5.8. List out the standard measurements for developing an ideal human figure.
 - 1.5.9. Develop figure croqui using eight head theory.

 - 1.6.1. Understand the meaning of fibre and classify them.
 - 1.6.2. List the properties of fibers.
 - 1.6.3. Select and handle the fabrics according to the properties of constituent fibre.
 - 1.6.4. Identifies the fibres and apply the knowledge in the selection of fabrics.
 - 1.6.5. Identify the types of yarns.
 - 1.6.6. Explain the formation and important properties yarn.
 - 1.6.7. Describe the different methods of fabric formation such as weaving, felting and knitting.
 - 1.6.8. Identify the structure of fabrics and apply this knowledge in the fabric selection.
 - 1.6.9. Identifies the construction of fabrics and implementing this knowledge in fabric or garment selection.
 - 1.6.10. List and find the common defects found in fabrics.
 - 1.6.11. Enlist the after treatments and explain their importance.
- Upon the completion of the second module the learner will be able to:
- 2.1.1. Identify and explain the various techniques for ornamentation of fabrics and garments.

- 2.1.2. Classify the different types of embroidery
- 2.1.3. Select and handle the tools and equipment used in developing embroidery stitches.
- 2.1.4. List and explain the methods of transferring design to the base material.
- 2.1.5. Choose appropriate design transferring technique.
- 2.2.1. Classify the hand embroidery stitches based on usage.
- 2.2.2. Identify the special features of outline stitches.
- 2.2.3. Select appropriate outline stitch for a design and stitch it neatly.
- 2.2.4. Identify the special features of Chain stitch family.
- 2.2.5. Select appropriate stitch from chain stitch family for a design and stitch it neatly.
- 2.2.6. Identify the special features of filling stitches.
- 2.2.7. Select appropriate filling stitch for a design and stitch it neatly.
- 2.2.8. Identify the special features of knot stitches.
- 2.2.9. Select appropriate knot stitch for a design and stitch it neatly.
- 2.2.10. Identify the special features of marking stitches.
- 2.2.11. Select appropriate marking stitch for a design and stitch it neatly.
- 2.2.12. Identify the special features of border stitches.
- 2.2.13. Select appropriate border stitch for a design and stitch it neatly.
- 2.2.14. List the parts of embroidery machine and explain its functions.
- 2.2.15. Operate the machine to create a design.
- 2.3.1. Identify and explain the traditional embroidery of India.
- 2.3.2. Differentiate the various creative embroidery works.
- 2.3.3. List out the process for constructing various embroidery works.
- 2.3.4. Choose the appropriate embroidery work for ornamenting the garments according to the nature of fabric and needs of user.
- 2.3.5. Ornament the garment / fabric with suitable methods of embroidery.
- 2.3.6. Describe the features of crochet work.
- 2.3.7. Identify the tools and materials crocheting

- 2.3.8. List out the procedure for constructing different crochet stitches.
- 2.3.9. Prepare samples with different crochet stitches.
- 2.4.1. Explain the concept of colouring.
- 2.4.2. Identify and handle the tools for colouring properly
- 2.4.3. Recognize the ideal medium for painting on different surfaces.
- 2.4.4. Draw, paint and shade different objects and shapes using water colour.
- 2.4.5. Paint and shade different Silhouette of skirts, sleeves, frocks etc.
- 2.5.1. Define textile dyeing.
- 2.5.2. Explain different methods of textile dyeing.
- 2.5.3. Define and classify dyes and pigments.
- 2.5.4. Explain the properties of different dyes.
- 2.5.5. Compare dyes and pigments.
- 2.5.6. Identify the materials required for dyeing with reactive dyes.
- 2.5.7. Decide and select the amount of dye and chemicals required for dyeing with reactive dyes.
- 2.5.8. Prepare dye bath for dyeing with reactive dyes
- 2.5.9. Step out the dyeing procedure.
- 2.5.10. Carrying out the dyeing process with reactive dyes.
- 2.5.11. Explain the role of after treatment in colour fastness.
- 2.5.12. Execute the after treatments for dyeing with reactive dyes.
- 2.6.1. Define textile printing
- 2.6.2. Identify printed materials from rest of the materials
- 2.6.3. Compare between dyeing and printing.
- 2.6.4. Identify and explain the different methods and styles of textile printing.
- 2.6.5. Select appropriate method and style of textile printing according to design and requirement of user.
- 2.6.6. Identify and describe the block printing process.
- 2.6.7. Print on fabrics using blocks.
- 2.6.8. Identify and describe the stencil printing process.
- 2.6.9. Print on fabrics using stencils.
- 2.6.10. Identify and describe the screen printing process.

- 2.6.11. Print on fabrics using designed screens.
- 2.6.12. Identify and list the procedure for tying and dyeing .
- 2.6.13. Create designs by tying fabrics and dyeing them.
- 2.6.14. Identify and list the procedure for batik printing.
- 2.6.15. Create designs by batik printing method.
- 2.6.16. Explain fabric painting and its advantages.
- 2.6.17. Identify and list out the materials required for fabric painting.
- 2.6.18. Identify and explain the various factors to be considered while painting on fabrics.
- 2.6.19. Create designs using different methods of fabric painting effectively for the individual and family needs

SCHEME OF WORK - MODULE - 1

Fundamentals of Fashion and Garment Construction

Month	Unit	Name of Unit	Periods		
			Theory	Practical	Total
June	1.1	Basic Concepts of Fashion and Apparel Designing	12	2	14
June	1.2	Sewing Tools & Equipments	5	7	12
June/ July	1.3	Sewing Machine	14	40	54
July / August/ September	1.4	Basics of Garment Construction	41	120	161
September/ October	1.5	Fashion Figure – Drawing	15	50	65
October	1.6	Elementary Textile Science	15	19	34
Total Periods			102	238	340

Scheme of Work - Module - II Garment Ornamentation Techniques

Month	Unit	Name of Unit	Periods		
			Theory	Practical	Total
November	2.1	Introduction to Garment Ornamentation	10	6	16
November/ December	2.2	Hand & Machine Embroidery	20	50	70
December/ January	2.3	Creative Ornamentation Techniques	30	75	105
January	2.4	Fashion Figure - Painting	12	45	57
February	2.5	Textile Dyeing	12	10	22
February / March	2.6	Textile Printing & Fabric Painting	18	52	70
Total Periods			102	238	340

Course Structure

This course consists of 4 modules such as:-

- Module I : Fundamentals of Fashion and Garment Construction
- Module II : Garment Ornamentation Techniques
- Module III : Pattern Making and Garment Construction
- Module IV : Fashion and Apparel Designing & Boutique Management

Classroom Activities

- Group / General discussions
- Debate
- Seminars
- Interviews
- Survey Projects
- Assignment (Preparation of charts, models, samples, albums & papers, Collections etc.)
- Demonstration
- Power point presentations
- ICT enabled interactions
- Quiz
- Class Test
- Activities carried out in PTCs

Practical Activities

- Operating the machines
- Practical Experiments
- Preparation of Samples
- Construction of Garments
- Creating designs
- Fashion Sketching and drawing
- Case Study
- Field visit
- Exhibitions / Fashion shows
- Activities under a Fashion & Apparel Club
- Project – Portfolio Development

On The Job Training

Classroom learning is not sufficient to start career, as a professional in the highly competitive and glamorous world of fashion and apparel. One has to get trained professionally under the supervision of experts in the respective fields to excel. To achieve this goal “On ***The Job Training***” is very helpful. It gives a hands own experience to what the students learned in their classrooms and laboratories, in a real environment.

Duration : One month OJT programmes can be included in the curriculum.

Time : It can be conducted according to the convenience of OJT centres in an area. It can be flexible, to minimize the interference with the academic pattern of other courses in the same school.

Centres : Dyeing and Printing Units, Art & Craft Centre for painting and Embellishments, Designer boutiques, Tailoring units, Textile industries, Garment Manufacturing Units etc.

Certification of Skill in Each Module

1. Certificate in Fundamental of Fashion & Garment Construction
2. Certificate in Garment Ornamentation Techniques
3. Certificate in Pattern Making and Garment Construction
4. Certificate in Apparel Designing & Boutique Management

Module : 1

Fundamentals of Fashion and Garment Construction

This module deals with the fundamentals of apparel and fashion designing. The introductory unit opens the window to the world of Fashion and Apparel Designing. The learner gets acquainted with the new terms and concepts of fashion world. Knowledge about textile science is very much important for any professional related to fashion and apparel industry. So the unit Elementary Textile Science is included in this module.

Basic skill in sketching is essential for a designer. A learner can attain this skill through continuous practice. He/she can illustrate a complete fashion figure only at the end of the course. But he should start the practice from the very beginning itself. For this purpose lessons and practice of drawing and sketching is included in the third unit. The last two units deals with the tools and equipments needed for garment construction and the techniques of garment construction.

List of Expected Skills

- Familiarize with fashion concepts use them in their daily professional life.
- Recognize the different activities carried out in different industrial manufacturing units and choose a suitable job.
- Identify the different tools and equipments used in garment construction.
- Distinguish different sewing machines used in garment industry and their use.
- Work proficiently on the sewing machine.
- Choose the proper garment construction techniques and apply it effectively.
- Safely utilizing the appropriate tools and machinery is essential to successful construction of garments and fashion related products.
- Sketch the basic shapes and objects through free hand movements. Visualize and draw garment shapes.
- Develop figure croqui using eight head theory.
- Identifies the different types of fabrics and their structure, construction etc. and apply the knowledge in the selection and use of fabrics.

Module : 1

Fundamentals of Fashion and Garment Construction *340 Periods*

Unit No.	Name of Units	Periods
1.1	Basic Concepts of Fashion and Apparel Designing	14
1.2	Sewing Equipment	12
1.3	Sewing Machine	54
1.4	Basics of Garment Construction	161
1.5	Fashion Figure – Sketching	65
1.6	Elementary Textile Science	34

Unit 1.1 : Basic Concepts of Fashion and Apparel Designing

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<ul style="list-style-type: none"> Apparel & Clothing - Meaning, Importance and functions 	<p><i>The learner will be able to:</i></p> <ul style="list-style-type: none"> understand and explain the meaning, importance and functions of clothing and apparel. 	<ul style="list-style-type: none"> Group discussion 	<ul style="list-style-type: none"> Work diary
<ul style="list-style-type: none"> Fashion Concepts & Terminology 	<ul style="list-style-type: none"> familiarize with fashion concepts and apply them in the daily life. 	<ul style="list-style-type: none"> General discussion / PowerPoint presentations Assignment - Collage 	<ul style="list-style-type: none"> Product Assessment - Collage.
<ul style="list-style-type: none"> Factors Influencing Fashion 	<ul style="list-style-type: none"> analyzes various factors influencing fashion. 	<ul style="list-style-type: none"> Group discussion / Seminar 	<ul style="list-style-type: none"> Work diary, Seminar Report.
<ul style="list-style-type: none"> Fashion & Apparel Industry 	<ul style="list-style-type: none"> identify various segments of the fashion industry and its auxiliary branches. explain the different activities carried out in manufacturing garments, in an industrial unit. 	<ul style="list-style-type: none"> Discussion Assignment - Flow chart Field Visit 	<ul style="list-style-type: none"> Product Assessment - Flow chart, Questionnaire for the field visit. Report - Field Visit.
<ul style="list-style-type: none"> Career opportunities in the field of fashion and apparel designing 	<ul style="list-style-type: none"> identify the duties and skill requirement of different careers in apparel industry. recognize career opportunities in the field of fashion and garment industry. 	<ul style="list-style-type: none"> Discussion / Interviews/ Interaction with eminent personalities in the field of fashion industry/ Assignment - Collection of profiles of eminent personalities in the field of fashion industry. 	<ul style="list-style-type: none"> Product Assessment - Collections Questionnaire Reports

Unit 1.2 : Sewing Tools and Equipments

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<ul style="list-style-type: none"> • Sewing Tools and Equipments 	<ul style="list-style-type: none"> • identify the different tools and equipments used in garment construction. 	<ul style="list-style-type: none"> • Discussion / Multimedia Presentations 	<ul style="list-style-type: none"> • Work diary.
<ul style="list-style-type: none"> • Measuring Tools - Measuring tape, rulers, L - Scale etc. 	<ul style="list-style-type: none"> • identify different measuring tools and their application. 	<ul style="list-style-type: none"> • Discussion / demonstration / Multimedia Presentations 	<ul style="list-style-type: none"> • Work diary.
<ul style="list-style-type: none"> • Marking Tools - Marking chalk, pencils, fabric pens, Tracing wheel, French curve, hip curve, hem gauge etc. 	<ul style="list-style-type: none"> • identify different marking tools and their application. 	<ul style="list-style-type: none"> • Discussion / demonstration / Multimedia Presentations 	<ul style="list-style-type: none"> • Work diary
<ul style="list-style-type: none"> • Cutting Tools - Scissors, Shears, Pinking Shears, Thread cutter, Industrial cutting machines etc. 	<ul style="list-style-type: none"> • identify different cutting tools and their application. 	<ul style="list-style-type: none"> • Discussion / demonstration / Multimedia Presentations 	<ul style="list-style-type: none"> • Peer Assessment - Quiz
<ul style="list-style-type: none"> • Stitching Tools - Sewing machine, Needle & Thread etc. 	<ul style="list-style-type: none"> • identify different stitching tools and their application 	<ul style="list-style-type: none"> • Discussion / demonstration / Multimedia Presentations / Assignment - Collections 	<ul style="list-style-type: none"> • Product Assessment Collections
<ul style="list-style-type: none"> • Pressing tools - Table, pressing pad, iron box etc. 	<ul style="list-style-type: none"> • identify different pressing tools and their application. 	<ul style="list-style-type: none"> • Discussion / demonstration / Multimedia Presentations 	<ul style="list-style-type: none"> • Work diary

Unit 1.3 : Sewing Machine			
Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
Sewing Machine - Types	<p>The learner will be able to,</p> <ul style="list-style-type: none"> distinguish different sewing machines used in garment industry and their use. 	<ul style="list-style-type: none"> Discussion / demonstration / Multimedia Presentations / Field Visit / Assignment - Collections 	<ul style="list-style-type: none"> Field Visit - Questionnaire, Report Product Assessment - Collections
Sewing Machine - Parts and functions	<ul style="list-style-type: none"> identify and explain the sewing machine parts and their functions. 	<ul style="list-style-type: none"> Discussion / Demonstration / Multimedia Presentations / Practical Activity 	<ul style="list-style-type: none"> Teacher Assessment - Class test, Practical Assessment - Identification
Sewing Machine Operation	<ul style="list-style-type: none"> carry out minor setting and operate sewing machine scientifically. 	<ul style="list-style-type: none"> Discussion / Demonstration / Multimedia Presentations / Practical Activity 	<ul style="list-style-type: none"> Work diary Practical Assessment - Work Sheets
Sewing Machine - Care and maintenance	<ul style="list-style-type: none"> use and maintain the sewing machine properly. 	<ul style="list-style-type: none"> Discussion / Demonstration / Practical Activity 	<ul style="list-style-type: none"> Process Assessment - Handling of Sewing Machine Work diary
Sewing Machine - Minor problems and their rectification	<ul style="list-style-type: none"> identify the common troubles occurring while stitching and rectify them. 	<ul style="list-style-type: none"> Discussion / Demonstration / Practical Activity 	<ul style="list-style-type: none"> Process Assessment - Handling of Sewing Machine
Sewing Machine - Special Attachments	<ul style="list-style-type: none"> identify the special attachments used in sewing machines. describe the use of special sewing machine attachments use special attachments in garment construction. 	<ul style="list-style-type: none"> Discussion / Demonstration / Multimedia Presentations / Assignment - Collection / Practical Activity 	<ul style="list-style-type: none"> Process Assessment - Handling of Sewing Machine attachments Product Assessment - Collection

Unit 1.4 : Basics of Garment Construction

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<p>Basic hand stitches - Constructive stitches (Temporary - Even tacking, Uneven & Diagonal Permanent - Running, back stitch, overcasting, hemming, blanket Stitch)</p>	<p>The learner will be able to,</p> <ul style="list-style-type: none"> recognize the different hand stitches used in garment construction and their use. select and effectively use the basic hand stitches in construction process. 	<ul style="list-style-type: none"> Discussion / Demonstration / Multimedia Presentations / Practical Activity 	<ul style="list-style-type: none"> Process Assessment - Handling of tools Product Assessment - Samples Practical diary
<p>Seams - Plain Seam, Flat fell Seam, French Seam, Lapped Seam Seam Finishes - Pinked Seam finish, Overcasting, Double Stitch Seam Finish, Herringbone Seam Finish, Edge stitch, Bound Seam Edge Finish</p>	<ul style="list-style-type: none"> compare the different seams and seam finishes. choose the proper seam and use them in correct places during garment construction. 	<ul style="list-style-type: none"> Discussion / demonstration / Practical Activity - Preparing Samples Discussion / demonstration / Multimedia Presentations, Assignment - Collections Practical Activity - Preparing Samples 	<ul style="list-style-type: none"> Process Assessment - Demonstration Product Assessment - Samples Practical diary
<p>Introducing fullness in Garments - Darts, Tucks, Gathers, Pleats, Flares & Godets.</p>	<ul style="list-style-type: none"> identify and compare the different methods of introducing fullness in garments. select and use the appropriate method to introduce fullness in garments. 		<ul style="list-style-type: none"> Process Assessment - Demonstration Collections Product Assessment - Samples

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
Plackets - Continuous & Two piece	<ul style="list-style-type: none"> • identify and compare the different types of plackets. • select and use the appropriate plackets in construction. 	<ul style="list-style-type: none"> • Discussion / demonstration / Practical Activity - Preparing Samples. 	<ul style="list-style-type: none"> • Process Assessment - Demonstration • Product Assessment - Samples
Fasteners - Buttons & Buttonholes, Show buttons & loops, Hook & Eye, Snaps, Zipper.	<ul style="list-style-type: none"> • identify and compare the different types of fasteners. • select and use the appropriate fastener in construction. 	<ul style="list-style-type: none"> • Discussion / demonstration / Assignment - Collection Practical Activity - Preparing Samples. 	<ul style="list-style-type: none"> • Process Assessment - Demonstration Collections • Product Assessment - Samples Practical diary
Neckline finishes - Facing & Binding Collars - Shirt Collar, Standing Collar, Peterpan Collar.	<ul style="list-style-type: none"> • identify and compare the different types of neckline finishes and collars. • select and use the appropriate neckline finishes and collars in construction. 	<ul style="list-style-type: none"> • Discussion / demonstration / Assignment - Collection / Practical Activity - Preparing Samples 	<ul style="list-style-type: none"> • Process Assessment - Demonstration Collections • Product Assessment - Samples Practical diary
Pockets - Patch pocket, Set-in pocket, Inseam pocket	<ul style="list-style-type: none"> • identify and compare the different types of pockets. • select and use the appropriate pockets in construction. 	<ul style="list-style-type: none"> • Discussion / demonstration / Practical Activity - Preparing Samples 	<ul style="list-style-type: none"> • Process Assessment - Demonstration Samples Prepared

Unit 1.5 : Fashion Figure - Sketching

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<ul style="list-style-type: none"> Introduction & meaning 	<p><i>The learner will be able to:</i></p> <ul style="list-style-type: none"> describe the meaning of fashion figure illustration. create and interest in fashion sketching 	<ul style="list-style-type: none"> Discussion / Multimedia Presentations / Collections 	<ul style="list-style-type: none"> Work diary.
<ul style="list-style-type: none"> Drawing tools and media 	<ul style="list-style-type: none"> recognize the use of drawing tools and media, and handle them appropriately. 	<ul style="list-style-type: none"> Discussion / Demonstration 	<ul style="list-style-type: none"> Product Assessment - Collections Work diary.
<ul style="list-style-type: none"> Object and Design Drawing - Freehand drawing and shading of basic shapes and objects using pencil 	<ul style="list-style-type: none"> draw the basic shapes and objects through free hand movements. sketch different types of designs - geometrical, abstract, decorative, with fruits and flowers, birds, animals, etc. 	<ul style="list-style-type: none"> Demonstration / Multimedia Presentations / Practical Activity 	<ul style="list-style-type: none"> Product Assessment - Figure / Drawings
<ul style="list-style-type: none"> Silhouette Drawing - Freehand drawing and shading of basic garment shapes 	<ul style="list-style-type: none"> visualize and draw garment shapes. 	<ul style="list-style-type: none"> Demonstration / Multimedia Presentations / Practical Activity 	<ul style="list-style-type: none"> Product Assessment - Figure / Drawings Class Test
<ul style="list-style-type: none"> Human Figure Drawing 	<ul style="list-style-type: none"> understand and explain the anatomy of human figure. list out the standard measurements for developing an ideal human figure. develop figure croqui using eight head theory. 	<ul style="list-style-type: none"> Demonstration / Multimedia Presentations / Practical Activity / Assignment - Chart 	<ul style="list-style-type: none"> Work diary. Product Assessment - Figure / Drawings, Charts

Unit 1.6 : Elementary Textile Science

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
Fiber - meaning, classification	<p><i>The learner will be able to:</i></p> <ul style="list-style-type: none"> understand the meaning of fiber and classify them. 	<ul style="list-style-type: none"> Discussion / Assignment - Chart 	<ul style="list-style-type: none"> Work diary. Product Assessment - Collage Peer Assessment - Puzzles
Fiber - Characteristics	<ul style="list-style-type: none"> list the properties of fibers. select and handle the fabrics according to the properties of constituent fiber. 	<ul style="list-style-type: none"> Group discussion / Multimedia Presentations / Seminar / Debate 	<ul style="list-style-type: none"> Seminar Report Process Assessment - Performance in the debate Teacher Assessment - Class test
Fiber - Identification (Physical, Microscopic and Burning Tests)	<ul style="list-style-type: none"> identifies the fibers and apply the knowledge in the selection of fabrics. 	<ul style="list-style-type: none"> Discussion /demonstration, Practical activities/ Assignments - Collections 	<ul style="list-style-type: none"> Product Assessment - Collections Practical Assessment
Yarns - Types , Formation, Properties	<ul style="list-style-type: none"> identify the types yarns. explain the formation and important properties yarn. 	<ul style="list-style-type: none"> Discussion / demonstration, Multimedia Presentations Field visits / Assignment - Collections / Diagrams 	<ul style="list-style-type: none"> Product Assessment - Collections, Diagrams Questionnaire & Report - Field visit
Fabrics - Formation (Weaving, Felting, Knitting)	<ul style="list-style-type: none"> describe the different methods of fabric formation such as weaving, felting and knitting 	<ul style="list-style-type: none"> Discussion / demonstration, Multimedia Presentations / Assignment - Collections / Diagrams / Field visits 	<ul style="list-style-type: none"> Work diary. Product Assessment - Collections, Diagrams Questionnaire & Report - Field visit

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<ul style="list-style-type: none"> • Fabrics - Structure (Plain & Twill, and modifications) 	<ul style="list-style-type: none"> • identify the structure of fabrics and apply this knowledge in the fabric selection. 	Discussion / demonstration, Multimedia Presentations / Assignment – Collections, Models & Diagram / Practical work (Identification of structure)	<ul style="list-style-type: none"> • Practical diary. • Product Assessment - Collections, Diagrams, Models • Practical Assessment
<ul style="list-style-type: none"> • Fabrics - Construction 	<ul style="list-style-type: none"> • identifies the construction of fabrics and implementing this knowledge in fabric or garment selection. 	Group Discussion / demonstration / Assignment - Collections	<ul style="list-style-type: none"> • Work diary. • Product Assessment - Collections
<ul style="list-style-type: none"> • Fabrics defects 	<ul style="list-style-type: none"> • list and find the common defects found in fabrics. 	Group Discussion / Demonstration / Assignment – Collections / Practical Activity – Identification	<ul style="list-style-type: none"> • Product Assessment - Collections Teacher Assessment - Class Test • Observations in the practical diary
<ul style="list-style-type: none"> • Fabric Processing - Bleaching, Printing & Dyeing 	<ul style="list-style-type: none"> • enlist the after treatments and explain their importance. 	Group Discussion / Assignment – Sample collection	<ul style="list-style-type: none"> • Work diary. • Product Assessment - Collections

List of Practical Activities

- Practice in using sewing tools.
- Sewing machine practice.
- Stitching Practice – Straight Line, Waves, Corner Lines, Broken Lines, Circles
- Practice in using special attachments of sewing machine.
- Preparing samples using basic hand stitches – Tacking (Even, Uneven & Diagonal), Running, Back Stitch, Overcasting, Buttonhole Stitch & Hemming
- Preparing samples of seams – Plain Seam, French Seam, Run & fell Seam & Lapped Seam
- Preparing samples of seam finishes – Pinking, Double Stitching, Overcasting, Herringbone & Bounding
- Preparing samples showing the different methods of introducing fullness in garments – Darts (single & double), Tucks (Pin tuck, Cross Tuck, Shell Tuck & Corded Tuck), Gathers (Hand, Machine & Shirring), Pleats (Accordion, Knife, & Box), Flares & Godets.
Preparing samples of plackets – Continuous & two piece.
- Preparing samples using different types of fasteners – Buttons & Buttonholes, Show buttons & loops, Hook & Eye, Snaps, Zipper & Eyelet hole & cords
- Preparing samples using different types of neckline finishes. – Facing & Bounding
- Preparing samples using different types of collars – Shirt Collar, Standing Collar, Peterman Collar
- Preparing samples using different types of pockets – Patch pockets, Set-in & In-seam pockets.
- Sketching – Basic lines, shape & objects
- Sketching – Silhouette / Garment Shapes & Designs.
- Develop figure croqui using eight head theory.
- Identification of textile fibers – Physical Tests, Microscopic Test & Burning Test.
- Identification of Yarn types.
- Identification of Fabric – Formation, Structure & Construction.
- Identification of fabric defects.

Module : 2

Garment Ornamentation Techniques

India is a country with very rich culture and tradition. Each states of our country have its own art forms and embellishment techniques. Embellishment is an integral part of garment construction as it brings in variety through embroidery, printing, dyeing, painting etc. India's Traditional garment ornamentation techniques are popular among the upcoming fashion designers.

This module aims at imparting knowledge and skills in the different areas of garment embellishment right from simple design transferring to the latest computerized machine embroidery. After the completion of the module the learner will able to perform different garment ornamentation techniques.

List of Expected Skills

- Familiarize with the garment ornamentation techniques.
- Recognize the different garment ornamentation techniques and its importance.
- Identify the different tools and equipments used for garment ornamentation
- Distinguish different sewing machines used in garment industry and their use.
- Work proficiently on the hand and machine embroidery.
- Choose the proper surface embellishment technique and apply it effectively.
- Safely utilizing the appropriate tools, materials and machinery used in garment embellishment techniques.
- Skill in making crochet stitches and products with crochet work.
- Understand colour theory & the colour mixing.
- Colouring and shading the basic shapes and objects through free hand movements.
- Visualize and draw garment shapes.
- Develop figure croqui using eight head theory.
- Dyeing of bleached goods with reactive dyes.
- Create designs with different printing techniques such as block printing, stencil printing, screen printing, tie and dye & batik printing
- Ornament fabric/garment with different fabric painting techniques.

Module : 2**Garment Ornamentation Techniques****340 Periods**

Unit No.	Name of Units	Periods
2.1	Introduction to Garment Ornamentation	16
2.2	Hand Embroidery Stitches	70
2.3	Creative Ornamentation Techniques	105
2.4	Fashion Figure – Painting	57
2.5	Textile Dyeing	22
2.6	Textile Printing & Painting	70

Unit 2.1: Introduction to Garment Ornamentation

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
Garment ornamentation - Meaning, importance and types.	The learner will be able to, <ul style="list-style-type: none"> identify and explain the various techniques for ornamentation of fabrics and garments. 	<ul style="list-style-type: none"> Discussion / Multimedia tools / Assignment - Collection 	<ul style="list-style-type: none"> Work diary / Product Assessment - Collection
Embroidery - Types	<ul style="list-style-type: none"> classify the different types of embroidery - hand & machine 	<ul style="list-style-type: none"> Discussion / Demonstration / Visual aids 	<ul style="list-style-type: none"> Work diary
Embroidery - Tools and equipments	<ul style="list-style-type: none"> select and handle the tools and equipment used in developing embroidery stitches. 	<ul style="list-style-type: none"> Discussion / Demonstration Visual aids / Assignment - Collection 	<ul style="list-style-type: none"> Product Assessment - Collection
Design transferring methods	<ul style="list-style-type: none"> list and explain the methods of transferring design to the base material. choose appropriate design transferring technique. 	<ul style="list-style-type: none"> Group discussion / Demonstration / Practical Work 	<ul style="list-style-type: none"> Work diary Practical work

Unit 2.2 : Hand and Machine Embroidery

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<ul style="list-style-type: none"> Hand Embroidery Stitches - Classification and Use. 	<p>The learner will be able to,</p> <ul style="list-style-type: none"> classify the hand embroidery stitches based on usage. 	<ul style="list-style-type: none"> Discussion / Visual aids 	<ul style="list-style-type: none"> Work diary
<ul style="list-style-type: none"> Hand Embroidery Stitches - Outline stitches 	<ul style="list-style-type: none"> identify the special features of outline stitches. select appropriate outline stitch for a design and stitch it neatly. 	<ul style="list-style-type: none"> Discussion / Demonstration / Multimedia tools / Practical Work 	<ul style="list-style-type: none"> Product Assessment - Samples
<ul style="list-style-type: none"> Hand Embroidery Stitches - Chain stitches 	<ul style="list-style-type: none"> identify the special features of Chain stitch family. select appropriate stitch from chain stitch family for a design and stitch it neatly. 	<ul style="list-style-type: none"> General discussion / Demonstration / Multimedia tools / Practical Work 	<ul style="list-style-type: none"> Work diary/ Product Assessment - Samples
<ul style="list-style-type: none"> Hand Embroidery Stitches - Filling stitches 	<ul style="list-style-type: none"> identify the special features of filling stitches. select appropriate filling stitch for a design and stitch it neatly. 	<ul style="list-style-type: none"> General discussion / Demonstration / Multimedia tools / Practical Work 	<ul style="list-style-type: none"> Work diary / Product Assessment - Samples

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<ul style="list-style-type: none"> Hand Embroidery Stitches - Knot stitches 	<ul style="list-style-type: none"> identify the special features of knot stitches. select appropriate knot stitch for a design and stitch it neatly. 	<ul style="list-style-type: none"> General discussion / Demonstration / Multimedia tools / Practical Work 	<ul style="list-style-type: none"> Work diary Product Assessment - Samples
<ul style="list-style-type: none"> Hand Embroidery Stitches - Marking stitches 	<ul style="list-style-type: none"> identify the special features of marking stitches. select appropriate marking stitch for a design and stitch it neatly. 	<ul style="list-style-type: none"> General discussion / Demonstration / Multimedia tools / Practical Work 	<ul style="list-style-type: none"> Work diary/ Product Assessment - Samples
<ul style="list-style-type: none"> Hand Embroidery Stitches - Border stitches 	<ul style="list-style-type: none"> identify the special features of border stitches. select appropriate border stitch for a design and stitch it neatly. 	<ul style="list-style-type: none"> General discussion / Demonstration / Multimedia tools / Practical Work 	<ul style="list-style-type: none"> Work diary, Product Assessment - Samples
<ul style="list-style-type: none"> Machine Embroidery - Parts, functions and operation 	<ul style="list-style-type: none"> list the parts of embroidery machine and explain its functions. operate the machine to create a design. 	<ul style="list-style-type: none"> General discussion / Demonstration / Multimedia tools / Practical Work / Field Visit 	<ul style="list-style-type: none"> Product Assessment - Samples, Field visit report

Unit 2.3 : Creative Ornamentation Techniques

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
Traditional Embroidery of India	The learner will be able to, <ul style="list-style-type: none"> • identify and explain the traditional embroidery of India. 	<ul style="list-style-type: none"> • Discussion / Visual Aids / Assignment - Paper / Collection 	<ul style="list-style-type: none"> • Work diary, Product Assessment - Collection
Appliqué work - Overlaid & Inlaid Cut work - Simple & Venetian Shadow Work Scalloping Quilting Mirror Work Smocking - Stem & Cable stitch Kamal work Kantha work Kasauti work Zardosi work	<ul style="list-style-type: none"> • differentiate the various creative embroidery works. • list out the process for constructing various embroidery works. • choose the appropriate embroidery work for ornamenting the garments according to the nature of fabric and needs of user. • ornament the garment / fabric with suitable methods of embroidery. 	<ul style="list-style-type: none"> • Group discussion / Audio Visual Aids (Multimedia Learning Tools)/ Demonstration / Practical Work / Assignments - Sample preparation 	<ul style="list-style-type: none"> • Work diary, • Product Assessment - Collection
Crochet - Tools & Materials	<ul style="list-style-type: none"> • describe the features of crochet work. • Identify the tools and materials for crocheting 	<ul style="list-style-type: none"> • Discussion / Visual aids 	<ul style="list-style-type: none"> • Work diary
Crochet Stitches and Stitching Procedure	<ul style="list-style-type: none"> • List out the procedure for constructing different crochet stitches. • prepare samples with different crochet stitches. 	<ul style="list-style-type: none"> • Group discussion / Audio Visual Aids (Multimedia Learning Tools)/ Demonstration / Practical Work / Assignments - Sample preparation 	<ul style="list-style-type: none"> • Work diary, Product Assessment - Collection

Unit 2.4 : Fashion Figure – Colouring

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<ul style="list-style-type: none"> • Introduction & meaning 	<p>The learner will be able to,</p> <ul style="list-style-type: none"> • explain the concept of colouring. 	<ul style="list-style-type: none"> • Discussion 	<ul style="list-style-type: none"> • Work diary
<ul style="list-style-type: none"> • Painting - Tools and medium • Colour - Colour Wheel & Colour mixing 	<ul style="list-style-type: none"> • identify and handle the tools for colouring properly • recognize the ideal medium for painting on different surfaces. 	<ul style="list-style-type: none"> • Discussion / demonstration / Assignment - Chart 	<ul style="list-style-type: none"> • Work diary • Product Assessment - Chart
<ul style="list-style-type: none"> • Painting and shading - Basic shapes and objects 	<ul style="list-style-type: none"> • draw, paint and shade different objects and shapes using water colour. 	<ul style="list-style-type: none"> • Discussion / Demonstration / Multimedia / Visual Aids / Practical Activity 	<ul style="list-style-type: none"> • Process Assessment - Practical work • Product Assessment - Figures
<ul style="list-style-type: none"> • Painting and shading - Silhouette of skirts, sleeves, frocks etc. 	<ul style="list-style-type: none"> • paint and shade different Silhouette of skirts, sleeves, frocks etc. 	<ul style="list-style-type: none"> • Discussion / Demonstration / Visual Aids / Practical Activity 	<ul style="list-style-type: none"> • Process Assessment - Practical work • Product Assessment - Figures

Unit 2.5 : Textile Dyeing				
Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment	
Dyeing - meaning, methods	<p>The learner will be able to,</p> <ul style="list-style-type: none"> define textile dyeing. explain different methods of textile dyeing. 	<ul style="list-style-type: none"> Discussion / Visual aids 	<ul style="list-style-type: none"> Work diary 	
Dyes and Pigments - Definition and Classification	<ul style="list-style-type: none"> define and classify dyes and pigments. explain the properties of different dyes. compare dyes and pigments 	<ul style="list-style-type: none"> Discussion / Visual aids / Multimedia tools 	<ul style="list-style-type: none"> Work diary, Class test 	
<p>Dyeing of bleached fabric with reactive dye.</p> <ul style="list-style-type: none"> Materials required Deciding the shade Dye bath preparation Dyeing procedure After treatment 	<ul style="list-style-type: none"> identify the materials required for dyeing with reactive dyes. decide and select the amount of dye and chemicals required for dyeing with reactive dyes. prepare dye bath for dyeing with reactive dyes step out the dyeing procedure. carrying out the dyeing process with reactive dyes explain the role of after treatment in colour fastness. Execute the after treatments for dyeing with reactive dyes. 	<ul style="list-style-type: none"> Discussion / Demonstration / Visual Aids - Flow charts / Practical Activity / Field visit/ Project work 	<ul style="list-style-type: none"> Flow charts, Questionnaire, Field visit report, Practical Work, samples prepared, project report. 	

Unit 2.6: Textile Printing & Painting

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<ul style="list-style-type: none"> • Textile printing - Meaning, Distinguishing features. 	<p>The learner will be able to,</p> <ul style="list-style-type: none"> • define textile printing • identify printed materials form rest of the materials • compare between dyeing and printing. 	<ul style="list-style-type: none"> • Discussion / Visual Aids / Seminar 	<ul style="list-style-type: none"> • Work diary, Report
<ul style="list-style-type: none"> • Textile Printing - Methods and Styles 	<ul style="list-style-type: none"> • identify and explain the different methods and styles of textile printing. • select appropriate method and style of textile printing according to design and requirement of user. 	<ul style="list-style-type: none"> • Discussion / Seminar / Assignment - Charts 	<ul style="list-style-type: none"> • Seminar report, Charts
<ul style="list-style-type: none"> • Textile Printing Process - Block Printing <ul style="list-style-type: none"> – Material required – Preparing dye paste – Printing process 	<ul style="list-style-type: none"> • identify and describe the block printing process. • print on fabrics using blocks. 	<ul style="list-style-type: none"> • Discussion / demonstration / Practical Activity 	<ul style="list-style-type: none"> • Process Assessment - Practical work • Product Assessment - Samples
<ul style="list-style-type: none"> • Textile Printing Process - Stencil Printing <ul style="list-style-type: none"> – Material required – Preparing dye paste – Printing process 	<ul style="list-style-type: none"> • identify and describe the stencil printing process. • print on fabrics using stencils. 	<ul style="list-style-type: none"> • Discussion / demonstration / Practical Activity 	<ul style="list-style-type: none"> • Process Assessment - Practical work • Product Assessment - Samples

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<p>Textile Printing Process - Screen Printing</p> <ul style="list-style-type: none"> - Material required - Preparing dye paste - Printing process <p>Textile Printing Process - Tie & Dye</p> <ul style="list-style-type: none"> - Material required - Preparing the fabric - Preparing dye bath - Tying and dyeing process 	<p>The learner will be able to,</p> <ul style="list-style-type: none"> • identify and describe the screen printing process. • print on fabrics using designed screens. • identify and list the procedure for tying and dyeing . • Create designs by tying fabrics and dyeing them. 	<ul style="list-style-type: none"> • Discussion / demonstration / Practical Activity • Discussion / demonstration / Practical Activity 	<ul style="list-style-type: none"> • Process Assessment - Practical work • Product Assessment - Samples • Process Assessment - Practical work • Product Assessment - Samples
<p>Textile Printing Process - Batik</p> <ul style="list-style-type: none"> - Material required - Preparing the fabric - Preparing dye bath - Dyeing process - Removing wax 	<ul style="list-style-type: none"> • identify and list the procedure for batik printing. • Create designs by batik printing method. 	<ul style="list-style-type: none"> • Discussion / demonstration / Practical Activity 	<ul style="list-style-type: none"> • Process Assessment - Practical work • Product Assessment - Samples

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment
<ul style="list-style-type: none"> • Fabric Painting - Meaning 	<p>The learner will be able to,</p> <ul style="list-style-type: none"> • explain fabric painting and its advantages. 	<ul style="list-style-type: none"> • Discussion/ Assignment - Collection 	<ul style="list-style-type: none"> • Work diary/ • Product Assessment - Collection
<ul style="list-style-type: none"> • Materials Required 	<ul style="list-style-type: none"> • identify and list out the materials required for fabric painting. 	<ul style="list-style-type: none"> • Discussion / Demonstration 	<ul style="list-style-type: none"> • Work diary • Class Test
<ul style="list-style-type: none"> • Fabric Painting - Factors to be Considered 	<ul style="list-style-type: none"> • Identify and explain the various factors to be considered while painting on fabrics. 	<ul style="list-style-type: none"> • Discussion 	<ul style="list-style-type: none"> • Work diary
<ul style="list-style-type: none"> • Fabric Painting - Methods 	<ul style="list-style-type: none"> • create designs using different methods of fabric painting. 	<ul style="list-style-type: none"> • Discussion / Demonstration / Practical work / Assignment 	<ul style="list-style-type: none"> • Process Assessment - Practical work • Product Assessment - Samples, Album

List of Practical Activities

- Practice in using embroidery tools.
- Practice in design transferring methods.
- Practice in Hand Embroidery Stitches – Outline Stitches, Chain Stitches, Filling Stitches, Knot Stitches, Marking Stitches & Border Stitches
- Preparing samples using different hand embroidery stitches – Stem Stitch, Back Stitch, Chain Stitch, Lazy – daisy Stitch, Feather Stitch, Satin Stitch, Long and Short Stitch, Fishbone Stitch, French knot, Bullion Knot, Cross Stitch, Star Stitch, Buttonhole Stitch & Herringbone Stitch.
- Embroidery machine practice.
- Prepare samples using machine embroidery.
- Preparing samples using different ornamentation techniques – Appliqué Work (Over laid & Inlaid), Cut work (Simple & Venation), Shadow Work, Scalloping, Quilting, Mirror Work, Smocking (Stem & Cable), Kamal Work, Kantha Work, Kasauti Work, Zardozi Work & Aari Work.
- Preparing a samples of Crocheting.
- Painting – Colour Wheel
- Painting – Silhouette / Garment Shapes & Designs.
- Develop figure croqui and flesh out using eight head theory.
- Prepare Samples through dying bleached goods with reactive dyes
- Prepare Samples with Block Printing Method
- Prepare Samples with Stencil Printing Method
- Prepare Samples with Screen Printing Method
- Prepare Samples with Tie & Dye Method
- Prepare Samples with Batik Method
- Prepare Samples with different fabric painting Method

List of Tools, Equipments & Materials

Non – Consumables (in the Present List)

Sl.No.	Name of Article	Quantity
1	Sewing Machine (Motorized)	30
2	Embroidery Machine	10
3	Fashion Maker	2
4	Measuring Tape	30
5	Meter Scale	30
6	L - Scale	30
7	Paper Scale	30
8	Tracing wheel	30
9	Shears (12")	30
10	Scissors (8")	30
11	Pinking Shears (12")	10
12	Iron box	5
13	Embroidery Frame	30
14	Wooden Block	30
15	Crochet Needle	30
16	Painting Dish	30
17	Flower vase (Ceramic)	30
18	Cutting Table	15
19	Wooden Stool	30
20	Steel Almarah	5
21	Basin	1
22	Bucket	1
23	Mug	1
24	Dress forms	2
25	Drawing boards & Pins	30
26	Drawing Pins	1000
27	White board	2
28	Display board – 10'x4'	2
29	Colour Plate	30

30	Magnifying / Count glass	30
31	French curve	30
32	Basic samples of Indian textiles	10
33	Charts of colour theory	1
34	Special Attachments - Ruffler	5
35	Special Attachments - Hemmer	5
36	Special Attachments - Tucker	5
37	Special Attachments - Binder	5
38	Special Attachments - Zipper Foot	5
39	Special Attachments - Zig - zager	5
40	Needle Plate	5
41	Seam ripper	30
42	Garment hangers	100
43	Pressing Pad	5
44	Steel Basin	5
45	Wooden stick	5
46	Gas Stove	1

Consumables (in the Present List)

Sl.No.	Name of Article	Quantity
1	Marking Chalk	100
2	Tracing Paper	100
3	Carbon Paper	100
4	Brown Paper	100 roll
5	Cloth for sewing	1000 mts
6	Poplin	100 mts
7	Organdi Cloth	10 mts
8	Matti cloth	10 mts.
9	Thread - Machine	200
10	Thread - Hand Embroidery	200
11	Thread - Machine Embroidery	100
12	Crochet Thread	50
13	Woolen thread	200
14	Machine Neede	10 pkt
15	Embroidery Machine Needle	10 pkt
16	Hand Embroidery Needle	10 pkt
17	Darning Needle	10 pkt
18	Fasters - Buttons ,Hooks, Zipers,	100 no. each
19	Elastic - ¼ " & ½ "	50 mts each
20	Buccrum	30mts.
21	Painting Brush (No. 00, 1 &5, Flat and Round)	30 nos.each
22	Fabric Paint (12 colours)	30 boxes
23	Dye Powder (Reactive Dye - 3 to 4 colours)	½ kg each
24	Bee wax	1 kg

Consumables (required additionally for Ist Year)

Sl.No.	Name of Article	Quantity
1	Pencils	100
2	Rubber	100
3	Drawing sheets	100
4	Velcrow	20 mts
5	Laces	50 mts
6	Charts	100
7	Sodium Carbonate (Dyeing)	½ kg
8	LPG	1

DETAILED ANALYSIS OF UNITS

Module 1

UNIT 1 Basic concepts of Fashion and Apparel Designing

Fashion and Apparel Designing is one of the major subject in any vocational curriculum as it become an essential part of human social as well as personal life. This unit deals with meaning, importance & functions of clothing, concept of fashion and designing etc. It also gives information's about the career opportunities in the field of Apparel & Fashion Designing. This introductory unit develops an interest in the field of fashion to the learner and makes him familiar with the textile industry.

Learning Outcomes

- 1.1. Understand and explain the meaning, importance and functions of clothing and apparel.
- 1.2. Familiarize with fashion concepts and apply them in the daily life.
- 1.3. Analyzes various factors influencing fashion.
- 1.4. Identify various segments of the fashion industry and its auxiliary branches.
- 1.5. Explain the different activities carried out in an industrial garment manufacturing unit.
- 1.6. Identify the duties and skill requirement of different careers in apparel industry.
- 1.7. Recognize career opportunities in the field of fashion and garment industry.

Unit Analysis

- 1.1. Key Concept : Apparel & Clothing – Meaning, Importance and functions

Sub Concept : Meaning & Importance of Apparel & Clothing

Suggested Activity: Discussion

The teacher introduces the topic through general discussion.

Discussion Points:

- What is clothing?
- Terms related to 'Clothing'
- Difference between the terms - dress, garments, apparel, fabric, textile etc.
- Importance of clothing/apparel

- Does early men used any types of clothes? Why they used it?
- What are the different materials used for clothing in ancient time?

After discussion the teacher consolidates the points and the learners prepare notes in their work diary.

Consolidation Points

- Clothing refers to anything / material which is used to cover our body. It can be range from plant and animal products to chemical and synthetic fibres.
- Garment refers to stitched form, while fabric refers to unstitched material.
- History of clothing

Assessment

Work Diary – Notes prepared / Points noted.

Sub Concept : Functions of Clothing

Suggested Activity : Discussion

The teacher introduces the topic through discussion.

Discussion Points:

- Needs of clothing
- Clothes used in industry
- Why we use uniforms?

After discussion the teacher consolidates the points and the learners prepare notes in their work diary.

Consolidation Points :

- Primary functions of Clothing – Protection, Sense of well being
- Secondary functions of Clothing – Self adornment, identification, social status etc.

Assessment

Work Diary – Notes prepared / Points noted.

1.2. Key Concept : Fashion Concepts & Terminology

Sub Concept : Fashion Concepts & Terminology – Fashion, Style, Trend, Classics, Fad, Fashion Life cycle.

Suggested Activity: Discussion / Assignment

A discussion session can be started with the help of a video or PPT.

Discussion Points:

- Have you heard the term 'Fashion'
- What it denotes?
- Meaning of Style in Fashion designing world
- Meaning of the term design, Trend, Fashion, Classic, Fad
- Does a fashion last for long time?
- What happens to its demand among people?

After discussion the teacher consolidates the points and the learners prepare notes in their work diary and ask the students to collect pictures showing style, trend, fad , classic & Fashion cycle. An assignment can be given to the students to illustrate the fashion cycle.

Consolidation Points

- Style – it is distinguishable characteristic of a garment. It is always constant and if consumers support a style, it become fashion.
- Trends – are styling ideas that have major collections in common.
- Fashion – a social process by which newly introduced styles or trends become popular in a certain time with acceptability by a wider cross-section of consumers.
- Classic – is a long lasting or constant fashion.
- Fad – it is a short lived fashion, it stays for a very short period.
- Fashion Cycle

Assessment

Work Diary – Notes prepared / Points noted.

Collections & Charts Prepared.

1.3. Key Concept : Factors Influencing Fashion – Economic, Sociological & Psychological

- a. **Sub Concept :** Factors Influencing Fashion – Economic, Sociological & Psychological

Suggested Activity : Seminar

The teacher introduces the topic through discussion and divides the students to six groups. Each group was asked to discuss the factors influencing fashion under different heading, for example:

Group 1 & 4 – Economic Factors

Group 2 & 5 – Sociological Factors &

Group 3 & 6 – Psychological factors.

Discussion Points:

- Economic factors influencing Fashion
- Sociological Factors influencing Fashion
- Psychological factors influencing Fashion

After discussion each group have to prepare a seminar paper including their discussion points. A date for the presentation of seminar has to be decided and one member of each group has to present the paper. The learners can interact by clarifying their doubts. After the presentation the learners prepare seminar report.

Consolidation Points

- Economic factors influencing Fashion – Consumer Income, Purchasing power, Population, Technological achievement etc.
- Sociological Factors influencing Fashion – Recreation, Retirement Leisure, Women power, Social status, Physical mobility, Entertainment, Famous personalities, Calamities etc.
- Psychological factors influencing Fashion – Boredom, Curiosity, Rebellion against convention, Self – assertion, Companionship etc.

Assessment

Participation in the group activity, presentation of seminar etc.

Seminar report, Work Diary.

1.4. Key Concept : Fashion & Apparel Industry

Sub Concept: Various sections in a garment /Textile Industrial Unit & their functioning.

Suggested Activity: Field Visit

The teacher introduces the topic through discussion. A field visit can be planned to an industrial unit to understand different activities carried out there. The teacher divides the students to 3-4 groups. Each group was asked to prepare a questionnaire for the information that should be collected from the field visit..

Discussion Points:

- Different units in apparel industry.
- Different sections of the unit.
- Functioning of each sections
- No. of works in each section & their job nature

After discussion a group member from each group present a questionnaire and required modifications should be done. Based on this questionnaire the data collected were consolidated and presented in to report form.

Assessment

Participation in the group activity, presentation of points etc.

Activity log, Questionnaire prepared, Report of field visit

1.5. Key Concept : Career opportunities in the field of fashion and apparel designing.

- a. Sub Concept : Different Career roles in the field of fashion & Apparel Industry.

Suggested Activity : Discussion & Assignment

The teacher introduces the topic through discussion and gives an assignment to collect profiles of eminent personalities in the field and their job nature.

Discussion Points:

- Different job roles.
- Famous persons working in the apparel and fashion industry.
- Qualifications required for each job profile.
- Duties and responsibilities of a professional in apparel and fashion industry.

After discussion a group member from each group present a questionnaire and required modifications should be done. Based on this questionnaire the data collected were consolidated and presented in to report form.

Assessment

Participation in the group activity, presentation of points etc.

Assignment collections.

Items for CE

- Seminar report
- Questionnaire prepared for field visit
- Report on field visit
- Assignment
- Unit Test

Sample TE Questions

1. Differentiate the terms style & Fashion
2. Draw the fashion cycle for a classic dress.
3. List the job roles in a apparel industry unit.
4. 'Fashion Designer' is a glamorous job in the world of fashion and apparel designing. List the duties of a 'Fashion Designer'.

List of Reference books & Instruction Materials

- Pattern Making for Fashion designers : *Helen Joseph Armstrong, Prentice Hall, New Jersey*
- Illustrating Fashion : *Kathryn McKelvey and Munslow, Blackwell Science, Australia*
- Concepts in Clothing : *Grate and Storm, McGraw Hill Book Co. New York*
- The Technology of Clothing Manufacture : *Harold Carr and Barbara Lathan, Oxford BSP Professional Book London.*
- Professional Fashion Illustration : *Seaman Julian, B.T. Batsford Ltd.London.*
- Fashion Drawing The Basic Principles : *Allen Anne Seaman Julian B.T., Batsford Ltd. London.*
- Practical Clothing Construction – Part I & II – : *Mary Mathews*
- Textiles - Fiber to Fabrics : *Bernard P Corbman, McGraw-Hill Book Company*
- Comdex – Fashion Design – Volume I : *Dr.Navneeth Caur,*
– Fashion Concepts
- Comdex – Fashion Design – Volume II
– Ensembles for Your Body Type
- Comdex – Fashion Design – Volume III
– Designing & Showcasing a Fashion Collection
- Comdex – Fashion Design – Volume IV
– Garment Designs & Pattern Making
- Comdex – Fashion Design – Volume V
– Construction of Garments
- Fashion Sketchbook: *Bina Abling, Fairchild, Publications, New York*
- Model Drawing : *Bina Abling, Fairchild, Publications, New York*
- Basic Process & Clothing Construction : *Shere Deorgaji & Raushmi Deshpande, Raaj Prakash, New Delhi*
- Fashion Design & Garment Technology (Learning materials) : *State Institute of Technical Teachers Training & Research, Kalamassery*
- Learning Resource - Fashion Studies : *Anu Susan john*
- Pattern Making for Fashion designers : *Helen Joseph Armstrong*

Prentice Hall, New Jersey

Illustrating Fashion : *Kathryn McKelvey and Munslow, Blackwell Science, Australia*

Concepts in Clothing : *Grate and Storm McGraw Hill Book Co., New York*

The Technology of Clothing Manufacture : *Harold Carr and Barbara Lathan, Oxford BSP, Professional Book, London.*

Professional Fashion Illustration : *Seaman Julian, B.T. Batsord, Ltd.London.*

Fashion Drawing The Basic Principles : *Allen Anne Seaman , Julian B.T. Batsford Ltd. London.*

Textiles : Fibre to Fabric : *Bernard Corbman, McGraw Hill books, New Delhi*

Vasthranirmanakala : *Elizabeth Chacko, The State Institute of Languages, Kerala*

Household Textiles & Laundry Work : *Durga Deulkar, Atma Ram & Sons, Delhi*

Zarapkar System of Cutting : *Zarapkar, Navneet Publications, India*

Text book of Fabric Science – Fundamentals to Finishing : *Seema Sekhri, PHI Learning Private Limited, New Delhi*

Dress Designing : *Manmeeth Sodhia, Kalyani Publishers, Chennai*

Design Studies : *Manmeeth Sodhia, Kalyani Publishers, Chennai*

Basic Process and Clothing Construction : *Sherie Deongai & Raushni*

Fashion Studies Text Book Class XI & XII : *CBSE, Delhi*

Websites

<http://www.sietkerala.gov.in/vhse.html>

<http://www.sisha.com/Fashion-Design-Courses>

<http://www.nift.ac.in>

<https://textInfo.wordpress.com/>