THE GANDHIGRAM RURAL INSTITUTE - DEEMED TO BE UNIVERSITY MINISTRY OF EDUCATION (SHIKSHA MANTRALAYA), GOI ACCREDITED BY NAAC WITH ‘A' GRADE (3rd Cycle) GANDHIGRAM - 624302, DINDIGUL DISTRICT, TAMIL NADU

M.Sc. TEXTILES AND FASHION DESIGN SYLLABUS (With effect from September 2021)

## DEPARTMENT OF HOME SCIENCE

SCHOOL OF SCIENCES

GRI (DU), GANDHIGRAM -624302

## M.Sc. Textiles and Fashion Design Syllabus 2021onwards

|  | $\stackrel{\theta}{i}$ |  |  | Title of the Paper |  | $\begin{aligned} & \text { ed } \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | . |  | Evaluation Marks |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Contact hrs |  |  | E | 氠 |  |
| I | 1.1 | $\begin{aligned} & \text { U. } \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | 21TFDP0101 | Advanced Fiber Science | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 1.2 |  | 21TFDP0102 | Advanced Yarn Science | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 1.3 |  | 21TFDP0103 | Advanced Fabric Science | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 1.4 |  | 21TFDP0104 | Advanced Fashion <br> Sketching (P)  | 0+2 | - | 4 | 2 | 60 | 40 | 100 |
|  | 1.5 |  | 21TFDP0105 | Fashion Draping(p) | 0+2 | - | 4 | 2 | 60 | 40 | 100 |
|  | 1.6 |  | 21TFDP0106 | Boutique planning | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  |  |  |  |  | 20 | 16 | 8 | 20 |  |  |  |
|  | 1.7 | CNCC | 21GTPP0001 | Gandhi in Everyday life | $2+0$ | 2 | 2 | 2 | 50 | - | 50 |
| Total |  |  |  |  | 22 | 18 | 10 | 22 |  |  |  |
| II | 2.1 | $\begin{aligned} & \text { ひ } \\ & \text { din } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | --------------- | Research Methodology | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 2.2 |  | ---------------- | Applied Statistics | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 2.3 |  | 21TFDP0207 | Advanced Garment Construction - I (p) | 0+2 | - | 4 | 2 | 60 | 40 | 100 |
|  | 2.4 |  | 21TFDP0208 | Advanced Wet Processing | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 2.5 |  | 21TFDP0209 | CAD in Garment Designing (p) | 0+2 | - | 4 | 2 | 60 | 40 | 100 |
|  | 2.6 |  |  | Elective- Generic | 3 | 3 | - | 3 | 40 | 60 | 100 |
|  | 2.7 |  | 21ENGP00C1 | Communications / Soft skills | 2 | 2 | - | 2 | 50 | - | 50 |
|  | 2.8 |  | 21TFDP0210 | Industrial Training - I | 0+4 | - | - | 4 | 100 | - | 100 |
| Total |  |  |  |  | 25 | 17 | 8 | 25 |  |  |  |
| $\begin{gathered} \text { II } \\ \text { I } \end{gathered}$ | 3.1 |  | 21TFDP0311 | Textile Testing and Quality Standards | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 3.2 |  | 21TFDP0312 | Portfolio Presentation -I (P) | 0+2 | - | 4 | 2 | 60 | 40 | 100 |
|  | 3.3 |  | 21TFDP0313 | Advanced Garment Construction -II (p) | 0+2 | - | 4 | 2 | 60 | 40 | 100 |
|  | 3.4 |  | 21TFDP0314 | Advanced Technical Textiles | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 3.5 |  | 21TFDP03DX | Discipline Centric | 3 | 3 | - | 3 | 40 | 60 | 100 |
|  | 3.6 |  | 21TFDP03MX | Modular | 2+0 | - | - | 2 | 50 | - | 50 |
|  | 3.7 |  | 21EXNP03V1 | Village Placement Programme | 2 | - | - | 2 | 50 | - | 50 |
| Total |  |  |  |  | 19 | 11 | 8 | 19 |  |  |  |
| IV | 4.1 |  | 21TFDP0415 | Entrepreneurship Development in Textiles | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 4.2 |  | 21TFDP0416 | Clothing Comfort in Textile and Fashion | 4+0 | 4 | - | 4 | 40 | 60 | 100 |
|  | 4.3 |  | 21 TFDP0417 | Fashion Accessories Design <br> (p) | 0+2 | - | 4 | 2 | 60 | 40 | 100 |


|  | 21TFDP0418 | Portfolio Presentation -II (P) | 0+2 | - | 4 | 2 | 60 | 40 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4.4 | 21TFDP04MY | Modular | 2+0 | 2 | - | 2 | 50 | - | 50 |
| 4.5 | 21TFDP0419 | Dissertation | 6 | - | 6 | 6 | 75 | $75+50$ | 200 |
| 4.6 | 21TFDP0420 | Industrial Training - II | 0+4 | - | - | 4 | 100 | - | 100 |
|  |  | Total | 24 | 10 | 14 | 24 |  |  |  |
|  |  | Grand Total | 90 |  |  | 90 |  |  |  |

## Discipline Centric Electives

\left.| Course code | Title of the course | Total hours |  |  | Contact | CFA | ESE | TOTAL |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Credit | Theory | Practical | hours |  |  |  |$\right)$

List of courses for 21TFDP03MX and 21TFDP03MY (Modular Courses)

|  | Course code | Title of the course | Total hours |  |  | Contact hours | CFA | ESE | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Credit | Theory | Practical |  |  |  |  |
| MX | 21TFDP03M1 | Concepts in <br> Fashion and <br> Design <br> Development | 2 | 2 | 0 | 2 | 50 | - | 50 |
| MY | 21TFDP04M1 | Textile Colouration and Finishes | 2 | 2 | 0 | 2 | 50 | - | 50 |
|  | 21TFDP04M2 | Protective clothing finishes | 2 | 2 | 0 | 2 | 50 | - | 50 |
|  |  |  |  |  |  |  |  |  |  |

Industrial Training/During Semester Break/ Vacation
TOTAL CREDITS - $\quad 22+25+19+24=90$

## Value Added Courses

| S.No | Course code | Course Title | Credits | Contact Hours |
| :--- | :--- | :--- | :--- | :--- |
| 1. | 21 TFDP0VA1 | Fashion Grooming | 2 | 2 |
| 2. | 21 TFDP0VA2 | Advanced Embroidery | 2 | 2 |

## ADVANCED FIBER SCIENCE

## Course Code: 21TFDP0101

Credit: 4+0
Max Marks: 100
Objectives:

- To impart the knowledge of fibres advanced in science, sources and their identification and properties
- To provide students with, the knowledge of natural, synthetic, regenerated fibers and their properties.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge in different types of textile fibers, origin, its classifications and properties. They will be able to identify different fiber types based on its physical and chemical parameters. They will gain knowledge in different fibers as well as different type fiber and its blends.

## Unit I

Fiber-definition-Classification, Natural fiber- vegetable fiber- cotton, linen, jute, hemp, sisal, ramie, coir, pine, banana fiber and its physical, chemical. Morphological properties. Natural fiber- animal fiber- silk, production and processing of silk, chemical composition of silk, properties of silk- microscopic, physical, chemical, biological. Wool history of wool, production and type of wool, chemical composition and molecular structure of wool and its properties, specialty hair fiber, mineral fiber- asbestos, natural rubber and its properties.

## Unit II

Regenerated fiber, regenerated modified fibers, Regenerated fiber- Viscose rayon, acetate, cupraammonium rayon, Bamboo, Modal, Soya, manufacturing process and microscopic, physical, chemical, biological properties and its uses and cares. Spinning polymers and synthetic membrane.

## Unit III

Inorganic fibers, synthetic rubber, basic units of fibers- monomers and polymers, polymerization- addition polymerization, condensation polymerization. Types of polymersalternating copolymer, block copolymer, random copolymer, graft copolymer, inter- polymer bonds in textile fibers- Vander Waals force, hydrogen bonds (H- Bond), salt linkages, covalent bonds.

## Unit IV

Synthetic and inorganic fibers, nylon, nylon 6,6, polyester, acrylic- modacrylic, olefins, spandex, Aramids, carbon fiber, glass fiber, metallic fibers, properties uses and cares. Blends, bio component and bio generic fibers.

## Unit V

Blending- blend, combination yarns, various stages of blending in the processing of fibers, bio component and bio generic fibers- methods of extrusion- side by side method, sheath/core method, matrix/fibril process, advantages of bio component- and bio generic fibers- stretch or crimp, increased absorbency, formation of non woven.

## Text Books:

1. Fundamentals of textile and their care - Susila Dantyayi-978-81-250-1027-2
2. Preparation of textile of fibers- Murphy- 81-85733-75-9
3. Hand book of silk technology- Tammanm
4. Jute handlooms of India- 1-890206-18-0
5. Dictionary of textile- Jewel ralil- 81-7488-677-x81-224-0495-2
6. E.P.G. Gohl, L.D. Velensky, "Textile Science" CBS Publishers and Distributors, 2003
7. Seema sekhri "Fabric science" 978-81-203-4183-8

## References

1. Kanwar varinder "Fabric studies" 81-272-1904-58
2. Druid "Fabric textile and patterns" 9789057681127
3. Jaistree "Hand book of textiles" 978-81-7132-717-
4. AJ. Hall. "The standard hand book of Textiles", Wood head Publishing $8^{\text {th }}$ edition 2004.
5. P.V. Vidyasagar, "Hand Book of Textiles", A. Mittal Publications, 2005
6. Sara J. Kadolph, "Textiles", Prentice Hall, $10^{\text {th }}$ edition 2007
7. J. Gordon Cook, "Hand Book of Textile Fibres", Vol - IT Man Made Fibers, Wood Head Publishing
8. Murphy "Preparation of textile of fibres" 81-85733-75-9
9. Susile dantyayi "Fundamentals of textile and their care" 978-81-250-1027-2
10. Bernard P. Corbman, "Textiles Fiber. to Fabric" McGrawhill Publications, 6th Edition 1983

## Lecture Schedule

| Unit | Topics to be covered | Hours |
| :---: | :---: | :---: |
| I | Fiber-definition-Classification, Natural fiber- vegetable fiber- cotton, linen, jute, hemp, sisal, ramie, coir, pina, banana fiber and its physical, chemical. Morphological properties. | 5 |
|  | Natural fiber- animal fiber- silk, production and processing of silk, chemical composition of silk, properties of silkmicroscopic, physical, chemical, biological. | 3 |
|  | Wool - history of wool, production and type of wool, chemical composition and molecular structure of wool and its properties | 3 |
|  | specialty hair fiber, mineral fiber- asbestos, natural rubber and its properties. | 3 |
| II | Regenerated fiber, regenerated modified fibers, Regenerated fiber- Viscose rayon, acetate, cupraammonium rayon, Bamboo | 3 |
|  | Modal, Soya, manufacturing process and microscopic, physical, chemical, biological properties and its uses and cares. | 4 |
|  | Spinning polymers and synthetic membrane | 3 |
| III | Inorganic fibers, synthetic rubber, basic units of fibersmonomers and polymers, polymerization- addition polymerization, condensation polymerization | 4 |
|  | Types of polymers- alternating copolymer, block copolymer, random copolymer | 3 |
|  | graft copolymer, inter- polymer bonds in textile fibersVander Waals force, hydrogen bonds (H- Bond), salt linkages, covalent bonds | 3 |
| IV | Synthetic and inorganic fibers, nylon, nylon 6,6, polyester, acrylic- modacrylic, | 3 |
|  | olefins, spandex, Aramids, carbon fiber, glass fiber, metallic fibers, properties uses and cares. | 3 |
|  | Blends, bio component and bio generic fibers. |  |
| V | Blending- blend, combination yarns, various stages of blending in the processing of fibers, bio component | 3 |
|  | bio generic fibers- methods of extrusion- side by side method, sheath/core method, matrix/fibril process, advantages of bio component | 5 |
|  | bio generic fibers- stretch or crimp, increased absorbency, formation of non woven. | 3 |
|  | Total | 51 hours |

## ADVANCED YARN SCIENCE

Course Code: 21TFDP0102

## Objectives:

- To impart the knowledge of yarn science in advanced, sources, their identification and properties
- To provide students with, the knowledge of yarn types and their properties.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge in different types of textile fibers, origin, its classifications and properties. They will be able to identify different yarn types based on its physical and chemical parameters. They will gain knowledge in different methods involved in spinning process of fibers as well as different types of yarn.

## Unit I

Yarn-definition, Classification, process of yarn construction - spun yarn conventional spinning methods- cotton system, woolen system, worsted system, flax system, unconventional spinning methods- open end spinning, friction spinning, twist less spinning, self twist spinning, vortex spinning, filament fibers and process- two- to- top system, tow to yarn spinning split film or tape yarns.

## Unit II

Yarn number or yarn count - Direct system- Tex, Denier, metric count, Indirect system, cotton count, worsted count, measurement of yarn count- quadrant balance, digital balance, yarn twist- direction of twist, amount of twist- length, fineness, stage of processing and end use. Balance of the yarn, functions of twist.

## Unit III

Classification based on yarn structure - simple yarn- single yarn, ply yarn, cord yarn , complex yarn and its types- slub yarn, thick and thin yarn, flock yarns, loop / curve yarn, Boulce yarn, nub / spot yarn, knot / knop yarn, seed / splash yarn, spiral yarn, chenille yarn, core- spun yarn.

## Unit IV

Textured yarn- Air- jet texturising, false- twist texturising, gear- crimping process, knife edge, extruding or edge crimping, stuffer box method, knit deknit technique.

## Unit $V$

Filament yarns- wet spinning, dry spinning, melt spinning, bio component spinning, Bio constituent spinning, integrated multi component yarn, integrated composite spinning, cover spun yarn and aerodynamic spinning.

## Text Books:

1. Fundamentals of textile and their care - Susila dantyayi-978-81-250-1027-2
2. Preparation of textile of fibres- Murphy- 81-85733-75-9
3. Textile Science- Gohl
4. Jute handlooms of India- 1-890206-18-0
5. Dictionary of textile- Jewel ralil- 81-7488-677-x81-224-0495-2
6. Hand Book of silk technology- Tammanm
7. E.P.G. Gohl, L.D. Velensky, "Textile Science" CBS Publishers and Distributors, 2003
8. Seema Sekhri "Fabric science" 978-81-203-4183-8
9. J. Gordon Cook, "Hand Book of Textile Fibres", Vol - IT Man Made Fibers, Wood Head Publishing.

## References

1. Murphy "Preparation of textile of fibres" 81-85733-75-9
2. Susile dantyayi "Fundamentals of textile and their care" 978-81-250-1027-2
3. Bernard P. Corbman, "Textiles Fiber. to Fabric" McGrawhill Publications, 6th Edition 1983
4. Gilbert R. Merrill, "Cotton Opening and Picking"! Universal Publishing Corporation, 1999
5. Gilbert R. Merrill, "Cotton Combing" universal Publishing Corporation, 1999
6. Gilbert R. Merrill, "Cotton Ring Spinning" Universal, Publishing Corporation, 1999

## Lecture Schedule

| Unit | Topics to be covered | Hours |
| :---: | :--- | :---: |
| I | Yarn-definition, Classification, process of yarn construction <br> - spun yarn - conventional spinning methods- cotton system | $\mathbf{4}$ |
|  | woolen system, worsted system, flax system, unconventional <br> spinning methods- open end spinning, friction spinning, | $\mathbf{3}$ |
|  | Twist less spinning, self twist spinning, vortex spinning, <br> filament fibers and process- two- to- top system, tow to yarn <br> spinning split film or tape yarns. | $\mathbf{4}$ |
|  | Yarn number or yarn count - Direct system- Tex, Denier, <br> metric count, Indirect system, cotton count, worsted count | $\mathbf{4}$ |
|  | Measurement of yarn count- quadrant balance, digital <br> balance, yarn twist- direction of twist | $\mathbf{4}$ |
|  | Aamount of twist- length, fineness, stage of processing and <br> end use. Balance of the yarn, functions of twist. | $\mathbf{4}$ |
| III | Classification based on yarn structure - simple yarn- single <br> yarn, ply yarn, cord yarn | $\mathbf{3}$ |
|  | its types- slub yarn, thick and thin yarn, flock yarns, loop / <br> curve yarn, Boulce yarn, nub | $\mathbf{3}$ |
|  | spot yarn, knot / knop yarn, seed / splash yarn, spiral yarn, <br> chenille yarn, core- spun yarn | $\mathbf{4}$ |
| IV | Textured yarn- Air- jet texturising, false- twist texturising. | $\mathbf{3}$ |


|  | Gear- crimping process, knife edge, extruding | $\mathbf{3}$ |
| :---: | :--- | :---: |
|  | Edge crimping, stuffer box method, knit deknit technique. | $\mathbf{3}$ |
| $\mathbf{V}$ | Filament yarns- wet spinning, dry spinning, melt spinning, <br> bio component spinning | $\mathbf{3}$ |
|  | Bio constituent spinning, integrated multi component yarn <br> integrated composite spinning, cover spun selfil and <br> aerodynamic spinning. | $\mathbf{3}$ |
|  | Total hours | $\mathbf{5 0}$ |

## ADVANCED FABRIC SCIENCE

Course Code: 21TFDP0103
Credit: 4+0
Max Marks:100

## Objectives:

- To impart the knowledge of fabric construction as weave, knit and nonwovens.
- To provide students with, the knowledge of fabric science and its types.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge in weaving and knitting, they know the looms and its parts, woven structures, knit and its types process, characteristic and mechanism.

## Unit I

Weaving - Introduction, Sequence of preparatory process of weaving. Passage of material trough weaving Machine. Loom - Introduction, different types of loom - Important motions of weaving process. Hand loom, Shuttle less loom, Modern loom - projectile, Rapier, Air jet loom, Water jet loom, Computer controlled loom. Woven fabric particulars. Various defect in woven fabric.

## Unit II

Elements of woven design- Design, peg plan, draft plan, structure, characteristics, types for Woven structure : Plain weave, twill - satin, sateen, Honey comb, Huck - a- back, crepe weave, Bed ford cords, welts and pique, Mock Leno weave, pile fabric, Colour and weave effect of extra wrap and extra wert. Double cloth. Spot figuring - arrangement of figuring for dobby Jacquard.

## Unit III

Knitting Machine and Mechanism: Types of knitting machine. Circular and Flat bed knitting machine - Parts \&function of the machine and passage of material. Knitting element - Mechanism of operation, passage of material and knitting action. Warp and wept knitting machine - single jersey mechanism, double jersey mechanism - plain and Jacquard. Purl mechanism, single and double bed flat knitting mechanism, single and double straight bar mechanism, tricot, Rachel and Simple mechanism - passage of materials and knitting action and Mechanism of operation.

## Unit IV

Properties of knitted structure: Warp and weft structure - single jersey, Rib, purl, Interlock, tricot, Rachel, Simplex - structure and representation properties, knitting Action, users and derivatives of knit structure. Basic Concept of Mechanism in Seamless knittingadvantages and limitations. Fabric faults. Fabric Geometry general terms - Stitch density, loop length, GSM, Fabric width and Tightness factor.

## Unit V

Non woven fabrics- definition, classification, methods of manufacturing- web formation, fabric formation-Bonding types, Characteristics and mechanism. Decorative fabric construction- Braiding, Netting, Lace, Knotting, Crocheting, Embroidery and felting-types. Characteristics and users.

## Text Books:

1. Fabric studies- Kanwar Varinder- ISBN 81-272-1904-58
2. Fabric textile and patterns- Druid- ISBN- 9789057681127
3. Textile Science- Gohl
4. Fabric science and technology- Mishra-ISBN-978-81-224-1250-5
5. Hand Book of textiles- Jaistree- ISBN-978-81-7132-717-1

## References

1. Theory of textile structure- Clifton over Holser- ISBN-987-93-5111-100-9
2. Textile design and structure- Chitra, Chowdhary- ISBN-978-81-8342-298-7
3. Textile designing theory and concept- Tanya Jain
4. Fabric studies- Kanwar Varinder- ISBN-81-272-1904-58

## ADVANCED FASHION SKETCHING

## (Practical)

## Course Code: 21TFDP0104

Credit: 0+2

## Max Marks:100

## Objectives:

- To introduce students to fashion illustration, sketching and rendering techniques.
- To enable the students to work outward from a point of focus or inspiration to develop a complete collection.
- To introduce students to aspects of fashion designing, To impart knowledge about how fashion works
- To better express the creative self, To develop managerial and the Fashion presentation skills of the students


## Specific Learning Outcome:

After learning this paper the students will gain knowledge in human body proportion, and bodies' parts, design and sketch the human features, rendering and garments. To enable students to take up consultations for fashion shows.

## Unit I

Basic human proportion, anatomy and model drawing - 8 head, 10 head and 12 head theory, straight, flesh and motion postures. Body features- Drawing leg, form and shape , foreshortening-arms, legs, rotating arms and legs, drawing arms, finger tips, drawing feet, shoes, men's shoes, women shoes, drawing hands form and shape.

## Unit II

Model drawing- Gesture components, Torso, Angles, Balance line, supporting leg and balance line, 2D and 3D silhouette drawing. Drawing the head - Full front head, three quarter turned head, profile head, sketching features diamond techniques, angles and planes for the face, outline for hair, sketching hair and hair styles.

## Unit III

Rendering techniques -Stripes, checks, gingham and plaids, patterns, reducing a print, shading, highlighting or shading, accents on solid colours. Shading on the figure, marker rendering steps, dramatic shading, fall fabrics, fabric development all black rendering. Colour rendering- Rendering flesh tones in marker, men's wear with marker kids and markers, water colour / painting flesh tones, mixing colour for water colour, rendering of fabric in water colour, acrylic colour, poster colour and rendering hair. Garment rendering - sweater, rib, and knitwear prints.

## Unit IV

Designer sketching and fashion illustration - Matching poses to garments, working with wide silhouette, attitude in poses, attitude contradictions, look verse feel, illustrator versus designer, and stylization for design emphasis. Drawing flats, styling the flats,
sketching flats free hands, flats and specs, measuring and detailing for specs, for children, women, men, portfolio flats, croquis mixed flats.

## Unit V

Drawing dictionary - necklines, women's collars, sleeves, armhole, shoulder, tops and blouses, dresses, skirts, pants, women jackets, women's coats. Men's jackets, men's coats, sleep wear /lounger wear, foundation/ innerwear design elements, bows and ties. Design features hats, waist lines, pockets, handbags, shoes, men's collar, lapels, cuffs, sewing treatments and problem spots.

## Text Books:

1. Fashion sketch book- Bina Abling- ISBN-81-8710-736--7
2. Elements of fashion and apparel design - Sumathi- ISBN- 81-224-1371-4
3. Figure drawing for fashion design-Elizabetta Drudi, Tiziana Paci-2010.
4. Fashion source book - Kathryn McKelvey - 2006.
5. New Encyclopedia of fashion details : Over 1000 Fashion Details, Batsford, -
6. Fashion Sketching, Alferd D. Dortennzio, Delmer Publishers, 1998.

## References:

1. Fashion Rendering with Colour - Bina Abling, Prentice Hall, 2001.
2. Fashion Drawing : The Basic Principles - Anne Allen and Seaman.
3. Professional Fashion Illustrations - Julian Seaman.
4. Encyclopaedia of Fashion Details - Patrik John Ireland
5. Fashion Illustration and Technique - Anna Kiper, Brunel House
6. Kalamkari and Traditional design heritage of India, Shakuntala Ramani, Wisdom tree, 2007.
7. Warli paintings: Traditional folk art of India, K. Prakash, English edition publishers and distributions (india), 2002.

## FASHION DRAPING

(Practical)

Course Code: 21TFDP0105
Credit: 0+2
Max Marks:100

## Objectives:

- To teach the students the basics principles, and interpret and analyze complex drapes
- To enable students to create their original designs on a three dimensional form using draping method.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge in basic bodice block, and bodices parts, developing various parts of the garment using draping techniques.

## Unit I

- Basic bodice block -front, back and sleeves (5 varieties).
- Variation in darts, pleats, tucks and gathers (5 varieties).


## Unit II

- Developing collars- Any two types- Mandarin, band collar, shirt collar, Peter Pan collar (5 varieties).
- Yokes- Hip yoke, shirt yoke and midriff yoke (5 varieties).


## Unit III

- Developing skirts- Flared, gore skirt, hip yoke skirt and princess waist skirt (5 varieties).


## Unit IV

- Create any one of the following garment for girl child - Yoke frock or middi and middi tops ( 10 varieties).
- For boy child - T-shirt and shorts or kurta and pyjama (5 varieties)


## Unit $V$

- Create any one of the following - Full gown with decorative effect (or) salwar, kameez with variation in sleeves and necklines (5 varieties).


## Text Books:

1. Draping for Fashion Design, Hilde Jaffe, Nurie Relis.
2. Dress Design - Draping and Flat Pattern, Hill House MS, Houghton Miffin Co, London, USA.
3. The theory of Fashion Design, Brockman, Magritha, John Wiley Sons, New York.

## References:

1. Design through Draping, Sheldon, Marhta, Burgers Publishing company, Minneapolis, USA.
2. Modern Pattern Design, Popin, Hariet, Funk and Wagnalls, New York and London.

## BOUTIQUE PLANNING

Course Code: 21TFDP0106
Credit: 4+0
Max Marks: 100

## Objectives:

- To acquaint the students for better managerial skills on Boutique.
- To enable the students to understand the intricacies of retail business.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge in boutique planning, costing, interior designing, developing own boutique and function of marketing in boutique planning.

## Unit I

Boutique interior planning- Boutique interiors and display locations, fixture and dressing, purchase display systems. Boutique management-types of boutique, planning, layout and storing. Inventory control-Definition, types, importance, remedies. Buying for boutique, Pricing merchandise and hiring.

## Unit II

Business option and plans for boutique. Costing and funding agencies. Boutique display, Exterior of boutique, Illumination, masking and proscenia mannequins and 3d dressing. Props and promotion n floor .Role and importance of visual merchandising in today market place and colour pallets.

## Unit III

Introduction to boutique management and terminologies. Fashion retailing-History ,Scope, Importance. Types of retailing (Domestic and international), techniques. Retail marketing channels Boutique market place and its role. E- Commerce: Global retailing competition, E - retailing, online marketing, communication - Strategy of fashion communication.

## Unit IV

Fashion marketing- Definition, Functions of marketing, concepts, product planning, product life cycle and product mix. Advertisement-Definition, importance and different methods ,media planning. Brands- Definition, trade mark, difference between brand and trade mark. Functions of brands, types of brands.

## Unit V

Fashion studio, Silhouette consultation, Effective sales techniques, boutique operations, brand building, competitive strategies and survey, market research. Fundamentals of window display and its various types of display settings. Tradeshows, fashion shows and trade organizations.

## Text Books:

1. Fashion Design and Product Development, Harold Carr and John Pomeroy, Black well Science Inc, Cambridge (1992)
2. Fashion marketing, Mike Basey, Oxford University press, Wynford Drve, Don Mills,Ontario (1995) . .
3. Introduction to Fashion, Patrick John, B T Batsford Ltd, Ireland, Fullham road, London (1992).
4. Fashion From Concepts to Consumer, Stephens Frings, Prentice Hall, 7th Edition 2002.
5. Marketing Management, Philip Kotler, Prentice Hall, 7th Edition 1996
6. Fashion marketing and merchandizing Manmeet sodhia 81-272-1184-2

## References:

1. Gastelino. M. Fashion Kaleidoscope, Rupa \& Co. 1994.
2. Gibson. G. Vedomani, Retail Management, jaico Publishing house, Bangalore
3. Elaine Stone, The Dynamies of Fashion, Fairchild Publication
4. Brenda Sternquiest international Retailing, Fairchild Publication, New York
5. Martin. M. Pegler, Store Window No.14, No 12, Visual reference Publishers, Newyork.

# II Semester <br> ADVANCED GARMENT CONSTRUCTION - I (Practical) 

## Objectives:

- To understand the textile and behavioral characteristics of various fabrics in relation to their application and end use.
- To correlate specific characteristics of fabrics with the layout, cutting, construction and finishing techniques.
- To be familiar with the terminology of Textiles in commercial use.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge in identify the application of various trims, fasteners, facing, interlinings and interfacings, garments in new born babies, infant, children etc.

## Unit I

Measurement, Designing, Pattern making and constructing -New born babies - Footie Pajamas, Booties and Mittens, Bonnets, Caps and Hats, Sleep Sack. (Each 5 varieties).

## Unit II

Measurement, Designing, Pattern making and constructing -Infant-One piece outfitsnap crotch bodysuit, Pull on pants, Snap-crotch T- shirt, Sweater or jacket, Footed sleepers, Gown with an elastic bottom, Hats, Socks or Booties, (Each 5 varieties).

## Unit III

Measurement, Designing, Pattern making and constructing -Kids- Jean (boy/girl), Frock (boy/girl), T-shirt (boy/girl), Frock (Cotton and Khadi), summer suits, Casual trousers.

## Unit IV

Measurement, Designing, Pattern making and constructing -Teenage girls/boys garments- Tunic garment, Midi garment, Shirt garment, A-line garment, Denim garment, party garment, Slit garment (Each 5 varieties).

## Unit V

Measurement, Designing, Pattern making and constructing - Foundation garmentPanties, brassier, swimsuit and shape wear (Each 5 varieties).

## Text Books:

1. Helen Joseph Amstrong, Pattern making for fashion design, fifth edition, 2009.
2. Basic Processes and Clothing Construction - Doongaji, Sherie and Desh Pande R.
3. More clothes for children - Slater Morg.

## References:

1. Manual for children clothing - Savitri Pandit
2. Complete guide to sewing - Reader's Digest

## ADVANCED WET PROCESSING

## Course Code: 21TFDP0208

Credit: $\mathbf{4 + 0}$
Max Marks: 100

## Objectives:

- To develop the holistic understanding of the finishing of fabric and garment used for the apparel industry
- To develop an understanding of the aesthetic and functional features of various types of finished fabrics and garments. To identify the effects of various types of finishes on the fabrics and the garments, changes occurring in their properties and their end uses in the apparel sector.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge to make the students understand the modern techniques of Garment and Fabric finishing in relation to productivity, cost quality and performance.

## Unit I

Finishes- definition, Classification, Finishing Process of cotton-Singeing, Desizing, Scouring, Bleaching, Mercerizing. Sequence of chemical processing of textile application of enzymes in textile processing- enzymatic desizing, methods of enzymatic desizing, enzymatic scouring process, Bio bleaching process and its application.

## Unit II

Natural dyeing -Definition, Classification, Types of natural dyes- Animal derived dyes-Cochineal insect (red), Cow urine (Indian Yellow), lac insect (red, violet), Murex snail (purple), Octopus/Cuttlefish (Sepia brown) their dyeing methods and Characteristics, Plant derived dyes- Catechu or Cutch tree (brown), Camboge tree resin (dark mustard yellow), Himalayan rhubarb root (yellow), Indigofera plant (blue), Kamala tree (red), larkspur (yellow), Madder root (red, pink, orange), Myrabolan fruit (yellow, green, black), Pomegranate peel (yellow), Weld herb (yellow) their dyeing Extraction methods and Characteristics.

## Unit III

Chemical dye, definition, Classification, Types of Dyes- Acid dyes, Basic dyes, Direct dyes, Mordant dyes, Vat dyes, Reactive dyes, Disperse dyes, Azoic dyes, sulfur dyes, Laser dyes, Leather dyes, Fluorescent brighteners, Solvent dyes, Chromophoric dyes and its types. Chemical processing equipment's -Principle and functions of different machines used preparatory processing including yarn rope, different mercerizing machines, jet and HTHP, beam dyeing machines, Foam applicator equipment for water removal - contact and non contact type of dryer, hydrometer, schematic diagram.

## Unit IV

Printing, Definition, Classification Techniques of printing- Preparation of printing Colours, thickening agents, printing paste preparation, fixation. Methods of printing- hand block printing, perrotine printing, Roller, Cylinder or machine printing, Stencil printing, Screen printing, Digital printing, Calico printing, Woolen printing, Silk Printing, Artificial fiber printing, Direct printing, Resist printing, Discharge printing. Conventional methods of printing, wet printing, transfer printing, dry, wet, and melt transfer, foam printing and ink jet printing.

## Unit V

Finishes - Mechanical finishing- Raising, Calendering, Chemical finishing, Shrinking (Sanforizing), Crease resist finish, Antimicrobial finish, Special Finishes for synthetic fiberHeat setting, Stiffening and filling process, Hydrophilic finishes, Anti pilling finish, Anti static finish, non slip finish, Fire resistant or Flame retardant finish, Anti microbial finish.

## Text Books:

1. Shenai, V.A. Technology of Textile Processing, Chemistry for Dyes and Principles of Dyeing, A Sevak Publication, Bombay, 1993
2. Manivsakam.N. Treatment of Textile processing Effluents, Sakthi Publications, Coimbatore, 1995.9
3. Gulrajani, M.L. Deepti Gupta, Natural dyes and their application to Textiles, Indian Institute of Technology, New Delhi, 1992
4. Prayag, R.S. ‘Technology of Textiles printing, L.R. Prayag, Dharwad, 1995.

## References:

1. Shenai, V.A. History of Textiles Design, Sevak Publications, Mumbai, 1995.
2. Sule, A.D. - ATIRA, Computer colour analysis- Textile applications, New Age International Private Limited, New Delhi, 2002.
3. Nalankilli.G., Textile Finishing, SSM Publication, Komarapalayam.2000.

## CAD IN GARMENT DESIGNING

## (Practical)

## Course Code: 21TFDP0209

## Objectives:

- To introduce students to various fashion designing concepts through CAD.
- To introduce the students with various advanced fashion designing software packages and develop the creativity among students in use of 3D software's.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge to make the students to creativity among students in use of 3D software's, kids garment, developing portfolio designing collection using software.

## Unit I

Principle of colours dyeing- primary, secondary, tertiary, triads, complimentary, split, monochromatic, neutral colors and its application in kids garments and women's garments. Weaves and textures.

## Unit II

Developing portfolio- design collection- Theme based - Developing theme board, mood board, color board, fabric swatch board, pattern board, story board, flat sketch and illustration boards.

## Unit III

Designing and developing patterns-grading-marker planning - Infant to 15 old years, frock, skirt and night gown for age group of 5years to 8 years.

## Unit IV

Designing and developing patterns - grading patterns - marker planning - women's garments - kameez, salwar and maxi garments.

## Unit V

Designing - pattern making-grading- markers planning- men's garments - trousers, kurta, pyjama, S.B.vest coat garment.

## Text Books:

1. The Indian textile journal, Volume 117, Issues 7-12, Sorabji M. Rutnagur, Business Press., 2007
2. Journal of Fashion Marketing and Management by Ji-Young Ea Ruckman, (Obtained her PhD from the Department of Textile Industries, Leeds University, England), Jeong-Wha Kim, (Obtained her PhD from the Department of Clothing and Textiles, Sookmyung Women's University, Korea)

## References:

1. Fashion Computing- Design Techniques and CAD by Sandra Burke by Burke Publishing.
2. Digital Fashion Illustration with Photoshop and Illustrator by Kevin Tallon

## Industrial Training - I

Period of supervised training required for qualifying for a profession. It follows a specified number of academic credits or classroom years.To provide a valuable opportunity to gain work experience in a student's chosen field before graduation. A student or a recent graduate undergoing supervised practical training. Since relevant work experience is one of the key qualifications companies look for when comparing candidates for a job or internship, completing several internships during college greatly increases the chances of being selected for a job after graduation. Even though college students learn the knowledge required for succeeding in a specific career through their college courses and curriculum, internships are one of the best ways to develop the required skills necessary to gain the experience required to be successful in the field.

Completing an internship can help a student decide if a particular career is actually the right fit for them, and through an internship, students can establish contacts or even earn college credit while working in a part-time, temporary position. Additionally, in a competitive job market, internships for college students give recent graduates an edge over other potential candidates who do not have any relevant work experience.

## III Semester

## TEXTILE TESTING AND QUALITY STANDARDS

## Course Code: 21TFDP0311 <br> Credit:4+0 <br> Max Marks: 100

## Objectives:

- To impart the knowledge of testing of fiber, yarn and fabric to the students.
- It enables to know about different Textile Testing instruments and machines as well as their working principles
- Helps in determining the quality parameters and testing conditions required in a textile testing lab.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge to make the students tofamiliarize students with different apparel quality standards, their underlying principles and the international accepted standards and test methods. To familiarize students with the different testing equipments, their underlying principles and the international accepted standards, test methods and the language of measurement, to develop understanding of the importance of quality control in textile testing

## Unit I

Textile testing definition, Classification, Quality control, Quality control of sewing thread and zipper- Thread construct/ ticket number- Thread count, Thread ply, Number of twist, thread balance, Thread tenacity, Thread Elongation, Sew ability, Imperfection, Thread finish, Thread colour, package density, Wimding, yardage. Factors are considered in zipper.

## Unit II

Quality control system- On line quality control system, Raw material control, process control, laboratory, Lab line- Standard sample, lab trail, Off line quality control systemPhysical test-GSM, Shrinkage, Spirality test, Tensile strength, Abrasion resistance, pilling resistance, Button strength Testing, Crease resistance, Dimensional stability, Bursting strength test.

## Unit III

Quality control system chemical test - Colour fastness to washing, Colour fastness to light, colour fastness to heat, Colour fastness to chlorinate water, Colour fastness to water spotting, Colour fastness to perspiration, Colour fastness to seawater, Fiber analysis, PH test, Repellency.

## Unit IV

Statistical Quality Control (SQC), Basic categories of statistical quality controlDescriptive statistics, Statistical process control, Acceptance sampling, Variation of statistical quality control- Allowable, Assignable, Functional of SQC in textile industry, Importance of textile testing- Checking raw materials, Monitoring production, Assessing the final product, Investigation of faculty material, Product development and research.

## Unit V

Quality control in the garment manufacturing process- Quality control in sample section, Quality control in marker making, Quality control in fabric spreading, quality control in fabric cutting, Quality control in sewing section, Quality control in Finishing section.

## Text Books:

1. Principles of textile Testing, Booth J E, Hoybooks, London (1970)
2. Technology of textile properties, Marjorie A Taylor, Forbes publications Ltd, London (1972)
3. Textile Testing, Angappan P and Gopalakrishnan R, SSM Institute of textile teclmology, Komara
4. Palayam
5. Fiber Science, Mishra S P and Kesavan B K, SSM Institute of textile teclmology, Komara Palayam
6. Objective evaluation of fabrics, Styios G, John Wiley \& Sons USA
7. Managing quality in apparel industry, Pradeep V Mehta, NIFT Publications

## References:

1. An Introduction to quality control for the apparel industry, Mehta P V, Marcel Dekker.
2. Physical testing and quality control, Vo123, No. $1 / 2 / 3$ textile Institute (1993)
3. Textile Testing, John Skinkle, Brooklyn Publication, New York.
4. Textile Testing, P. Angappan \& Gopala Krishnan, JK. Publications
5. John H Shinkle, Textile testing, Brooklyn publication 2003

## PORTFOLIO PRESENTATION

## (Practical)

## Course Code: 21TFDP0312

## Credit:0+2

## Max Marks:100

## Objectives:

- To make students understand the importance of portfolios and presentation
- To impart practical skills for portfolio presentation.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge to make the students to develop the western ensemble for different type of body and create a design according to the body types.

## Unit I

Portfolio development and presentation for ensembles for ladies - western ensembles, Indian ensembles and other ensembles. Pear body - diamond body types, round body types, hour glass body types, inverted triangle, straight body type, maternity wear, mood board, story board, colour board- presented separately or in a combined form. Fabric development, chart design development, charts final presentation.

## Unit II

Portfolio development and presentation for ensembles for men - western ensembles, Indian ensembles and other ensembles, short and heavy body types, short and thin body types, tall, heavy body types, tall and thin body types, athletic body types - mood board, story board, colour board - presented separately or in a combined form, fabric development chart design development chart final presentation.

UNIT II Portfolio development and presentation for Informal, Formal, Casuals, seasons or occasion, occupation, sports, for men, women, children, mood board, story board, colour board, presented separately or in a combined form ,fabric development chart design development and chart final presentation.

## Unit III

Portfolio development and presentation for ensembles for children (western and Indian)- - clothes for different age groups, infants, toddlers.

Portfolio development and presentation for ensembles for children (western and Indian)- - clothes for pre-school and nursery school child, Unit IV

Portfolio development and presentation for ensembles for children - clothes for elementary school child (western and Indian)-

## Unit V

Portfolio development and presentation for ensembles for children(western and Indian)- - clothes for teenagers, collegiate- Mood board, story board, colour boardpresented separately or in a combined form, fabric development chart design development chart final presentation.

## Text Books:

1. Jerligan Easterling "Fashion Merchandising and Portfolio presentation" Prentice Hall
2. J. John Dickenson, "Inside the Design world" Pearson Education
3. Gini Stephen Frings " Fashion - from concept to consumer" Pearson Education
4. Polly Guerin "Creative fashion presentation" Fairchild publications

References:

1. Fashion Computing- Design Techniques and CAD by Sandra Burke by Burke Publishing.
2. Digital Fashion Illustration with Photoshop and Illustrator by Kevin Tallon

# ADVANCED GARMENT CONSTRUCTION- II <br> (Practical) 

Code: 21TFDP0313
Credit:0+2
Max Marks:100

## OBJECTIVES:

- To impart the knowledge on salwar and kameez, blouse, trouser and men's garments to the students


## Specific Learning Outcome:

After learning this paper the students will gain knowledge to make the students todeveloping the patterns and construct all kind of salwar and kameez varieties, blouse, men's wear garments.

## Unit I

Developing patterns and constructs the garment

- Dhoti Salwars, Straight cut salwar suit,Churidar Salwars, Anarkali suit
- Patiala Salwars, Punjabi salwar suit,Harem Salwars, Frock style salwar suit
- Afghani Salwars, Lehenga style salwar suit,Palazzo Salwars, Asymmetric salwar suit,Parallel Salwars, Indo western style suit


## Unit II

## Developing patterns and constructs the garment

- Backless Blouse,Halter Neck Blouse,Boat Neck Blouse,High Neck Blouse
- Princess Cut Blouse,Square Neck Blouse,Cut Work Blouse, Leather Jackets


## Unit III

Developing patterns and constructs the garment

- Formal plain full sleeve shirts for men,Formal full sleeve slim fit men shirt
- Casual slim fit men shirt,Casual half sleeve shirt for men
- Checked men shirt,Men's full sleeve plaid men shirt
- Patch worked jean shirt for men


## Unit IV

Developing patterns and constructs the garment

- Chinos Trousers,Casual Trousers,Formal Trousers,Joggers Trousers
- Jeans Trousers,Track Trousers,Cargo Trousers,Jodhpuri Trousers


## Unit $V$

Developing patterns and constructs the garment

- Kashmiri bridal outfit,Maharahtrian bridal outfit
- Rajasthani bridal outfit,Gujarati bridal outfit
- Assamese bridal outfit,Bengal bridal outfit
- Tamilian bridal outfit


## Text Books:

1. Basic Processes and Clothing Construction - Doongaji, Sherie and Desh Pande R.
2. More clothes for children - Slater Morg.
3. Manual for children clothing - Savitri Pandit
4. Complete guide to sewing - Reader's Digest
5. Costumes of India and Pakistan, Das S.N, DB Taraporevala sons \& Co, Mumbai 1958.

## References:

1. Costumes through the ages lever, Jamession and Schuster, Newyork, 1968.
2. Traditional Indian textiles, Gillow or Barnard, Thames and Hudson, London, 1994.
3. History of Fashion, Anderson Black J, orbis publishing Ltd, USA 1985.
4. Costumes \& textiles of Royal India, Ritukumar, Christies Book Ltd, London 1999.

## ADVANCED TECHNICAL TEXTILES

## Course Code: 21TFDP0314

## OBJECTIVES:

- To acquaint the students with the techniques of development in nano fiber and micro fibres and study the recent development in the field of technical textiles.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge to make the students to impart knowledge of technical textiles with their properties and applications

## Unit I

Technical textiles - Definition, classification, Technical textiles - Application and functions and uses. Technical textile fibers- conventional fiber, high strength and high modulus organic fibers. High performance inorganic fibers, ultra fine \& novelty fibers selection of fibers, manufacturing, function and its property. Market overview and future prospects of technical textile industry.

## Unit II

Medical textiles- Introduction, fiber used for medical field. Specialized area - nonimplantable materials, extra corporeal devices. Implantable material and healthcare /hygiene products - fibre selection, fabric, property and functions. Composite material Reinforcement textiles, woven fabric - reinforced composites, braided reinforcement, knitted reinforcement and stitched fabrics.

## Unit III

Protective textiles - types of protective garment. Ballistic protective material, fire proof, water proof, insect proof \&snow proof, UV protective material, accessories for protective garments -gloves, helmet, masks, shoes, respiratory device - fiber selection, fabric construction, finishes for protection. Sport textiles -Definition and clothing requirements, functional fibers. Footwear clothing - fabric requirements and finishing adaptability.

## Unit IV

Geo textiles - Geo synthesis -Geo textiles, essential properties of geo textile. Natural fibers -Application of natural geo textiles. Performance of natural fiber for soil strength and frictional resistance. Coated textiles - Chemistry of coated textiles, coating techniques, fusible interlining, laminating process. Auto mobiles technology.

## Unit $V$

Transportation textiles - Tyre cord design and manufacturing techniques -seat belts, liner fabric, air bags, car - interior design, seat cover - manufacturing techniques materials and properties. Smart textiles and intelligent textiles - classification - active smart, passive
smart and very smart textiles and phase change materials shape memory polymers, chromic and conductive materials and its application in various fields. Nano technology - area of application and its properties.

## Text Books :

1. Hand book of Technical textiles - A R Horrocks and S C Anand, Wood head
2. publishing ltd, England 2000.
3. Rigby, A.J. and Anand, S.C., Non-wovens in Medical and Healthcare Products, Technical Textiles, Int., 1996.
4. Pandy, S.N., Potential for the use of Natural Fibres in Civil Engineering, Jute Technological Research Laboratory, 2002.

## References:

1. Grosick, Z.J.Walson's Advanced Textile Design-compound woven structures, Woohead Publishing, England, 2004.
2. Murphy W.S, Textile Finishing, Abhishek Publications, Chandgarh, 2000.

## IV Semester

## ENTREPRENEURSHIP DEVELOPMENT IN TEXTILES

## Course Code: 21TFDP0415 <br> Credit:4+0 <br> Max Marks:100

## Objectives:

- To introduce students to aspects of fashion and textile marketing and merchandising Specific Learning Outcome:

After learning this paper the students will gain knowledge in Entrepreneurship, Entrepreneurial Development, Project Management, Finance and Marketing, small industry set up.

## Unit I

Entrepreneur and Entrepreneurship - Introduction to Entrepreneurship Meaning and concept of entrepreneurship, the history of entrepreneurship development, role of entrepreneurship in economic development.Concept, Definition, Role and Importance in Indian Economy, Theories of Entrepreneurship, Entrepreneurial Traits and Motivation, Entrepreneurs Vs Professional Managers, Future challenges. Rrole of entrepreneurs in development of apparel and fashion industry, entrepreneurship with reference to fashion and apparel industry in India..

## Unit II

Entrepreneurial Development: Entrepreneurial Environment - Meaning, Private Enterprise and Development, Significance of Entrepreneurial Development Programmes, Meaning Evolution and Objectives of EDP, Institutional efforts to develop Entrepreneurship, Operational Problem of EDPs The skills/ traits required to be an entrepreneur, Creative and Design Thinking, the entrepreneurial decision process, skill gap analysis, and role models, mentors and support system, entrepreneurial success stories

## Unit III

Project Management: Search for Business idea, Concepts of Projects and Classification, Project Identification, Project formulation, Project Design and Network Analysis, Project Report, Project Appraisal, Factory design and Plant Layout, Financial Analysis- Risk and Return Unit Communication Importance of communication, barriers and gateways to communication, listening to people, the power of talk, personal selling, risk taking \& resilience, negotiation.

## Unit IV

Finance and Marketing: Finance: Sources of Development Finance, Project Financing InstitutionsFinancial Institutions, Consultancy, Organisations. Marketing: Methods, Channel of Marketing, Marketing Institutions and Assistance. . E-Cell Meaning and concept of E-cells, advantages to join Ecell, significance of E-cell, various activities conducted by E-cell. Inventory control- production control- quality control, cost control and business communication. Marketing, Market mix, product mix. Merchandising, retailing

## Unit $V$

Small Industry Setup: Considerations in Selection of Particular Form of Organisations- Sole proprietorship, Partnership, Joint Stock Company, Cooperative Organisations- Their Merits, Limitations, Exploring Export Possibilities, Problems of Entrepreneurship. Industrial Management Industrial sickness and remedies, tax planning, VAT, Patent Rules, Factory Act, Minimum wages, knowledge of exemptions \& deductions. Health and safety Measures in Textiles and garment industries. Equipment Management,

## Text Books:

1. Dynamics of Entrepreneurial Development Management Vasant Desai, Himalaya Publishing House.
2. Entrepreneurial Development S.S. Khanna Entrepreneurship \& Small Business Management CL Bansal, Haranand Publication
3. Entrepreneurial Development in India Sami Uddin, Mittal Publication RajaGopal, Entrepreneurship \& Rural markets
4. H.B.S. press, Harward Business Review on Entrepreneurship Harward business review, USA
5. Fashion Design and Product Development, Harold Carr and John Pomeroy, Black well Science Inc, Cambridge (1992)
6. Fashion marketing, Mike Basey, Oxford University press, Wynford Drve, Don Mills,Ontario (1995)

## References:

1. Introduction to Fashion, Patrick John, B T Batsford Ltd, Ireland, Fullham road, London (1992).
2. Fashion From Concepts to Consumer, Stephens Frings, Prentice Hall, 7th Edition 2002.
3. Marketing Management, Philip Kotler, Prentice Hall, 7th Edition 1996
4. Entrepreneur Vs Entrepreneurship- Human Diagnosis of Development Banking Nagendra P. Singh, Asian society for Enterpreneurship Education and development

## CLOTHING COMFORT IN TEXTILES AND FASHION

## Course Code: 21TFDP0416 <br> Credit:4+0 <br> Max Marks:100

## Objectives:

- To impart the knowledge on the clothing comforts in textiles and fashion designing and its factors affecting


## Specific Learning Outcome:

After learning this paper the students will gain knowledge to make the students toprovide a theoretical understanding on a selection of clothing and comfort details.

## Unit I

Factors of Comfort - Definition, Physiological and psychological aspects of comfort. The human clothing system. Scope of clothing comfort research. Thermo physiological comfort - Air permeability, water vapor transfer, liquid water transfer, heat transfer.

## Unit II

Textile comfort -Fabric prickliness, Itchiness, stiffness, softness, smoothness, roughness and scratchiness. Fit comfort - General aspects, construction factors, dimensional changes and the effects of fit on comfort, Aesthetic comfort - General aspects, aesthetic properties of fabric change in aesthetic behavior.

## Unit III

Predictability of clothing comfort performance - prediction of fabric hand and clothing thermo physiological comfort predictability of sensory comfort and subjective preference. Fashion forecasting - definition, types of forecasting - forecasting regarding comfort in clothing.

## Unit IV

Application of clothing comfort research - Methods of improving comfort, comfort improved fibers - cool max and triactor, improved yarn structure - PRH 50. Engineered fabric construction - Fabric field sensor, techno fine and aqua miracle. Multiple layer structures and membranes -Gore-Tex, atima and hydro weave. Improved finishes and coating. Comfort fibres and fabrics for active sportswear.

## Unit V

Wardrobe planning -Definition, Importance clothing decision and factors affecting clothing decision. Planning procedure selection of material, different age, group income level, climate and occasion. Wardrobe planning for infant, toddlers, school going, teenagers, office going men and women, home makers, pregnant women, old age people wardrobe planning for physically challenged people.

## Text Books:

1. Family clothing taste of Glession John wiley \& Sons Inc., Illionois latest Edition.
2. Clothing for Morderns -Mabel D Ervin

## References:

1. Gastelino. M. Fashion Kaleidoscope, Rupa \& Co. 1994.
2. Gibson. G. Vedomani, Retail Management, jaico Publishing house, Bangalore
3. Elaine Stone, The Dynamies of Fashion, Fairchild Publication
4. Brenda Sternquiest international Retailing, Fairchild Publication, New York
5. Martin. M. Pegler, Store Window No.14, No 12, Visual reference Publishers, Newyork.

## FASHION ACCESSORIES DESIGN <br> (Practical)

Course Code: 21TFDP0417
Credit:0+2
Max. Marks: 100

## Objectives:

- To impart the students on various advanced methods of accessories designing.
- To impart the students on various advanced ornamentation techniques.

Specific Learning Outcome:
After learning this paper the students will gain knowledge to make the students to develop a professional craftsmanship skill of ornament designing.

## Unit I

- Teracotta jewellery design 5 varieties
- Quliing jewellery design 5 varieties
- Kundan Necklace, earing design 5 varieties
- Chain, Bangle, Anklet and Finger ring 5 varieties


## Unit II

- Crystal jewllery set 5 varieties
- Beads jewellery set 5 varieties
- Wooden jewellery set 5 varieties


## Unit III

- Decorative bow for women 5 varieties
- Formal bow for men 5 varieties
- Belts for boys/girls 5 varieties


## Unit IV

- Wallets for men 5 varieties
- Pouches and purses for women 5 varieties
- Watches for men and women 5 varieties


## Unit V

- Developing hand bags 5 varieties
- Hats, Sandles, Shoes 5 varieties
- Gloves for men and women 5 varieties


## Text Books:

1. John Peacock, " The complete 20th Century Source Book", Thames and Hurlson, London, 2000 John
2. Peacock, " Fashion Accessories- Men", Thames and Hudson, London, 1996 REVISED SYLLABUS - FINAL B.TEXT. (FT) W.E.F. JUNE 2009
3. Claire Billcocks," Century of Gavin Bags", Chartwell Books, New Jersey 1997
4. Malolow Blahnik- Co Collin Mac dolw, " Shoes -Fashion and Fantasies", Thames and Hudson, 1989
5. Gavin Waddell, "How fashion works", Blackwell Publishing

## References:

1. Phyllis Tortora "The Fair child Encyclopedia of Fashion Accessories", OM publishers
2. Gini Stephens Frings, "Fashion from concept to consumer", Seventh edition
3. Dr. M.S. Sheshadri, "Apparel Marketing and Merchandising"

## PORTFOLIO PRESENTATION -II

## (Practical)

## Course Code: 21TFDP0418

## Credit:0+2

## Max Marks:100

## Objectives:

- To make students understand the importance of portfolios and presentation
- To impart practical skills for portfolio presentation.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge to make the students to develop the western ensemble for different type of body and create a design according to the body types.

Unit I Portfolio development and presentation for ensembles for men - western ensembles, Indian ensembles and other ensembles, short and heavy body types, short and thin body types, tall, heavy body types, tall and thin body types, athletic body types - mood board, story board, colour board - presented separately or in a combined form, fabric development chart design development chart final presentation.

Unit II Portfolio development and presentation for Informal, Formal, Casuals, seasons or occasion, occupation, sports, for men, women, mood board, story board, colour board, presented separately or in a combined form ,fabric development chart design development and chart final presentation.

Unit III Portfolio development and presentation women (western and Indian)- mood board, story board, fabric board, colour board to be presented separately in a combined form, fabric development, chart design development, chart final presentation.

## Unit IV

Pear body - diamond body types, round body types, hour glass body types, inverted triangle, straight body type, maternity wear, mood board, story board. Portfolio development and presentation for ensembles for ladies - western ensembles, Indian ensembles and other ensembles

## Unit V

Portfolio development and presentation for bridal wear Portfolio development and presentation party wear for men.

Portfolio development and presentation women (western and Indian)- mood board, story board, fabric board, colour board to be presented separately in a combined form, fabric development, chart design development, chart final presentation.

## Text Books:

1. Jerligan Easterling "Fashion Merchandising and Portfolio presentation" Prentice Hall
2. J. John Dickenson, "Inside the Design world" Pearson Education
3. Gini Stephen Frings " Fashion - from concept to consumer" Pearson Education
4. Polly Guerin "Creative fashion presentation" Fairchild publications

References:
3. Fashion Computing- Design Techniques and CAD by Sandra Burke by Burke Publishing.
4. Digital Fashion Illustration with Photoshop and Illustrator by Kevin Tallon

## DISSERTATION

Final year under postgraduate students at the end of final semester under goes a major research work. Based on the curriculum/ area of interest by the individual has been focused with objectives, and detailed work on literature, methodology, result analysis and submitting as bound work with summary, conclusion with evidence of tools used, appendix. This will be evaluated as per the scheme.

## Industrial Training - II

## Course code: 21TFDP0420

## Credit 0+4

Max marks=100

Period of supervised training required for qualifying for a profession. It follows a specified number of academic credits or classroom years.To provide a valuable opportunity to gain work experience in a student's chosen field before graduation. A student or a recent graduate undergoing supervised practical training. Since relevant work experience is one of the key qualifications companies look for when comparing candidates for a job or internship, completing several internships during college greatly increases the chances of being selected for a job after graduation. Even though college students learn the knowledge required for succeeding in a specific career through their college courses and curriculum, internships are one of the best ways to develop the required skills necessary to gain the experience required to be successful in the field.

Completing an internship can help a student decide if a particular career is actually the right fit for them, and through an internship, students can establish contacts or even earn college credit while working in a part-time, temporary position. Additionally, in a competitive job market, internships for college students give recent graduates an edge over other potential candidates who do not have any relevant work experience.

## Major Electives

## INDIAN ART AND COSTUMES

Course Code: 18TFDP03D1 Credit:4+0 Max Marks:100

## Objectives:

- To impart the knowledge on the costumes of different countries of the India


## Specific learning Outcome:

After learning this paper the students will gain knowledge to make the students toprovide a theoretical understanding on different cultural and customary costumes of India.

## Unit I

- Art and design - categories of Indian Art- Origin, History.
- Art of Indus valley civilization - male's attire, female attire.


## Unit II

- Indo Aryan periods and their arts and costumes
- vedic periods and their arts and costumes
- Mayuran and periods and their arts and costumes
- sugan periods and their arts and costumes
- stavahana periods and their arts and costumes


## Unit III

- Kushan period arts and costumes.
- Gupta period art and costumes and accessories used during those periods.


## Unit IV

- Indian traditional art -History - origin - development- process
- Kalmkari painting
- Madubani art
- Gond paintings
- warli art etc.


## Unit V

- Mughal periods and their arts and costumes men's and women's costumes, accessories contempory period costumes etc.
- British Period and their arts and costumes in India


## Text Books :

1. Costumes of India and Pakistan, Das S.N, DB Taraporevala sons \& Co, Mumbai 1958.
2. Costumes through the ages lever, Jamession and Schuster, Newyork, 1968.
3. Traditional Indian textiles, Gillow or Barnard, Thames and Hudson, London, 1994.

## References:

1. History of Fashion, Anderson Black J, orbis publishing Ltd, USA 1985.
2. Costumes \& textiles of Royal India, Ritukumar, Christies Book Ltd, London 1999.

## PRODUCTION MANAGEMENT

Course Code: 21TFDP03D2
Credits: 4+0
Max Marks:100

## OBJECTIVES:

- To introduce students to aspects of fashion and textile marketing and merchandising
- To impart knowledge about various product standards and product specifications and the process of product development towards market need.


## Specific Learning Outcome:

After learning this paper the students will gain knowledge to make the students toproduction management specifications and the process of product development towards market need.

## Unit I

Different department in Garment Unit- Design department, Finance department, Purchasing department, production department, Organizing different section- Hierarchy, personnel involved in all the departments, Nature of job.

## Unit II

Factory design and layout- Concepts, Importance, Factor affecting factory design. Type of buildings (single and multi- storey)- Advantages and limitation. Factory layoutprocess, product and combined layout. Design requirement- Requirement relating to health, Safety and welfare.

## Unit III

Inspection methods- Quality control-Definition- Importance of quality- Raw material Inspection- Fabric Inspection. In process Inspection-Spreading-Cutting-Sewingpressing/Finishing, Final Inspection-Sampling Plan-Sampling technique-Acceptance sampling.

## Unit IV

Cost control, principle of costing, Types of cost and elements of cost, Cost estimation for fiber, yarn, weaving and knitting, dyeing, printing and finishing. Cost estimation for design development, cutting, product development, packing, shipment and selling post, profit percentage, tax and vat percentage. Function of cost control- Budget planning, buying cost, standard cost sheet, break even chat.

## Unit V

Performance of Indian Garment Export- SWOT analysis, setting up of garment unit for export market, Export document, Export finance- Payment method, Export is shipping. The standard and specification in garment industry.

## Text Books:

1. Fashion Design and Product Development, Harold Carr and John Pomeroy, Black well Science Inc, Cambridge (1992)
2. Fashion marketing, Mike Basey, Oxford University press, Wynford Drve, Don Mills,Ontario (1995) .
3. Introduction to Fashion, Patrick John, B T Batsford Ltd, Ireland, Fullham road, London (1992).

## References:

1. Fashion From Concepts to Consumer, Stephens Frings, Prentice Hall, 7th Edition 2002.
2. Marketing Management, Philip Kotler, Prentice Hall, 7th Edition 1996

## CONCEPTS IN FASHIONAND DESIGN DEVELOPMENT

## (Modular courses)

## Course Code: 21TFDP03M1

Credits: 2+0
Max Marks:50

## Objectives:

- To teach the students the concepts in design and fashion related to terms, principles.
- To enable students to create a varietyof dress designs body's in the concepts.


## Specific Learning Outcome:

After Learning this subject students will gain knowledge about garment designing, suitability of designs and colour analysis in designing.

## Unit- 1

Design Concepts - Structural and Applied design, Garment Silhouettes ,Elements of design and their effects- Line, shape, color and texture. Principles of design and their effects-Proportion, Balance, Emphasis, Rhythm, Harmony.

## Unit - 2

Terms and Concepts Related to Fashion - Fashion terms: Fashion, Fad, Classic, Trend, Haute-Couture, Prêt-a-porter, Knockoff Accessories, toile, boutique, bespoke Inspiration and sources of fashion- printed sources, historic /traditional costumes, media, travel, fabrics, awareness. Factors influencing fashion.

## Unit 3

Fashion Cycle- Consumer identification with fashion life cycle its three stages fashion leaders / followers /innovators/ motivators/victims. Theories of Fashion Adoption Trickle down, trickle up bottom up, trickle across.

## Unit -4

Application of colour and Principles of design in dress - Harmony through colour, Emphasis through colour, Proportion through colour, Rhythm through colour and Balance through colour. Illustrate the Colour Harmony in Dress Design.

## Unit- 5

Design Development - Design development and sourcing of fabric .Development of a sample garment and line. Specification sheet and cost sheet .Fashion forecasting, sources of fashion forecasting information.

## Text Books:

1.Elements of Fashion and Apparel Design By, G. J. Sumathi, New Age International, 2007
2. Art in everyday life by-Harriet Goldstein,2007, Macmillan,
3. Fashion design, the art of style by Jen Jones, Capstone, 2007

## TEXTILE COLOURATION AND FINISHES

## Course Code: 21TFDP04M1 <br> Credits: $2+0$ <br> Max Marks:50

## OBJECTIVES:

To gain knowledge on different types of natural dyes, mordants and finishes in textiles.
To make the students understand various methods of dyes and printing textiles

## Specific Learning Outcome:

After learning this subject students will gain knowledge about natural dyeing and various printing methods in advances, equipments and latest machines used in printing and dyeing.

## Unit 1

Finishes-definition, classification of finishes and importance of finishes in textiles. special finishes ,aesthetic finishes, special purpose or functional finishes, comfort related finish

## Unit 2

Natural mordants- Types of mordents- metallic ,Tannis and oil type. Methods of mordant'sPre mordanting, post mordanting and simultaneous mordanting. Dyeing process for various fibres using natural colourants.

## Unit 3

Natural dyes-history, sources, classification based on natural pigments, chemical constituents and colors, method of application, methods of dye extraction.

## Unit 4

Printing with Natural dyes-Importance of natural dyes for printing, printing processpreparation of fabric, preparation of colors, preparation of printing paste, printing process drying of fabric, fixing the print, after process treatments.

## Unit 5

Finishing agents- importance of natural finishing in textiles,Natural sources,types of plants used in fining agents. Herbal finishes.

## Text Books:

1.Bernard.P.Corbman, 1983,Textiles-Fiber to Fabric,Mc Graw Hill Publishing, Singapore pp-158-198 2.G.Nalankilli and S.Jayaprakasam, 1997,Textile Finishing,S.S.M.I.T.T Students cooperative Stores,Komarapalayam,23
3.Kanwar Varinder Pal Singh 2009,Elementary Idea of Textile dyeing, Printing and Finishing,Kalyani Publication, New delhi. P. 3
4. Saar.J.Kadolph, 2009,Textiles,Dorling Kindersley India private Ltd p.329-377

## References:

1.Sankar Roy Maulik and Kunal Bhandari, Dyeing of Silk and Wool with Madhuca indica, Asian dyer, oct-nov-2012, p-42
2. M.D.Teli, Sanket P.Valia and Shruti Venkatram, Eco friendly colouration of natural fibre Pandanus Utilis, Asian Dyer, Feb-March-2014, p.24-26

## PROTECTIVE CLOTHING FINISHES

Course Code: 21TFDP04M2 Credits: $2+0 \quad$ Max Marks:50

## Specific Learning Outcome:

On successful completion of this course the students will have a clear knowledge on functional textiles, functional textile finishes and its applications.

## OBJECTIVES:

To gain knowledge on different types of functional textiles.
To make the students understand various applications of functional textiles.

## UNIT I

UV Protection Finish - meaning, process involved in UV Protection coating, application of UV Protection fabrics.

## UNIT II

Anti-microbial finish - types of Anti-microbial finish, application of Anti-microbial finish on fabric.

## UNIT III

Anti-odor finish, Application and uses.

## UNIT IV

Mosquito Repellent finish - process involved and uses.

## UNIT V

Softening finish - Types of softeners, application of softeners.

## Text Books:

1. Schinder W D and Hauser P J "Chemical finishing of textiles" The Textile Institute, Wood head Publishing Ltd, Cambridge.
2. Charles T "Chemistry \& Technology of fabric preparation and finishing", North Carolina State University, 1992.
3. Perkins W S "Textile Coloration and Finishing", Carolina Academic Press, UK, 1996.

References:

1. Menachem L and Stephen B S, "Handbook of Fibre Science and Technology" Vol II - Part

B, Marcel Dekker inc, New York, 1983.
2. Walter Fung "Coated and laminated textiles" Wood head Publishing Pvt Ltd, UK, 2002.

## VALUE ADDED COURSES

## FASHION GROOMING

## Course Code : 21TFDP0VA1 <br> Credit : 2+0 Max: marks : 50

## Objectives

- To develop knowledge and skills on grooming
- To acquire knowledge on basic personal care.
- To apply various techniques on self grooming and styling
- To introduce students to the theory, fundamentals and tools of Depilation.
- To solve contra-actions that may occur after waxing treatments.


## Specific learning outcome

After learning this course students will be able to do self grooming on their own . Develop different appearance related to fashion and then styling. Developing portfolio on styling.

## Unit - I

Self Rolling of thread- Material required for threading- Eyebrow shaping- Threading and TweezingPrecautions and Reminders

## Unit -II

Basic Skin Care- Analysis of the Skin, Select the products according to Skin Type- Cleansing, Scrubbing, Toning, Moisturising

## Unit -III

Basic Facial-Basic Trolley setting for Facial- Analysis of Skin, Basic massage manipulation, Procedure for Basic facial- Precaution and reminders

## Unit - IV

Different types of hair cutting - tools and equipments needed and procedures to be followed. Waxin- Preparation of the equipment and resources (wax), Temperature, Types of Wax and Products, Methods and techniques, Practical demonstration; application and removal Unit - IV
Self manicure and pedicure - tools and equipments needed and procedures to be followed. Different types of Facials procedures to be followed.

## Unit - V

Self Make Up For Different Occasions - Different types of Saree draping, Make up tools and equipments used.

## Text Books

1. Style \& Grooming- Felix oberman.
2. Hand book of Attire and grooming by Cyrus .M.Gonda
3. Careers in Beauty and Grooming by Lerner and mark.

## Advanced Embroidery

Course Code: 21TFDP0VA2
Credit - 2

## Objectives.

- To develop products using hand embroidery techniques.
- To enhance the skills and uses of tools and materials.
- To develop knowledge on different types of hand embroidery on different design and colour coordination.


## Specific Learning Out come

After completing this course the students will know how to create products using different hand embroidery stitches appropriate to a particular design. Developing various motifs and color combinations etc.,

## Units

* Design and developing
* Cushion covers using hand embroidery stitches
* Patch work with embroidery
* Designing and developing using appliqué work with embroidery.
* Wall hangers of different frames - Sizes using hand embroidery stitches. (Any one size)
* Any household articles like Table linen, Table Cover, Curtains etc

Candidate according to their interest any one article should be completed for display

