## BANGALORE

UNIVERSITY

B.Sc. Fashion \& Apparel Design (CBCS) Syllabus<br>(I to VI Semesters)<br>2020-2021 onwards

DEPT. OF APPAREL TECHNOLOGY \& MANAGEMENT BANGALORE

| SEMESTER I |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Subjects | Paper Theory Practical | Instructio <br> n <br> Hrs/week | Duratio <br> n of <br> Exam <br> (Hrs) | Marks |  |  | CREDIT |
|  |  |  |  |  | IA | Exam | Total |  |
|  | Language I | Theory | 4 | 3 | 30 | 70 | 100 | 2 |
|  | Language II | Theory | 4 | 3 | 30 | 70 | 100 | 2 |
| FAD 103 | Fibre \& Yarn Science | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| $\begin{aligned} & \text { FAD } 103 \\ & \text { B } \end{aligned}$ |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 104 | Elements of Fashion \& Design | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| $\begin{aligned} & \text { FAD } 104 \\ & \text { B } \\ & \hline \end{aligned}$ |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| $\begin{array}{\|l} \hline \text { FAD } 105 \\ \text { A } \\ \text { FAD } 105 \\ \text { B } \\ \hline \end{array}$ | Pattern Making \& Garment Construction I | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
|  | FC/SDC | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  | CC\&EC | - | - | - | 50 | - | 50 | 1 |
|  |  |  |  | Total | 800 |  |  | 16 |


| SEMESTER II |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Subjects | Paper Theory/ Practical | Instructio <br> n <br> Hrs/week | Duration of Exam (Hrs) | Marks |  |  | CREDIT |
|  |  |  |  |  | IA | Exam | Tota 1 |  |
|  | Language I | Theory | 4 | 3 | 30 | 70 | 100 | 2 |
|  | Language II | Theory | 4 | 3 | 30 | 70 | 100 | 2 |
| FAD 203 | Fabric Science \& Analysis | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| $\begin{gathered} \text { FAD } 203 \\ B \end{gathered}$ |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| $\text { FAD } 204$ | Fashion Illustration \& Design | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| $\begin{gathered} \text { FAD } 204 \\ \text { B } \end{gathered}$ |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| $\begin{gathered} \text { FAD } 205 \\ \text { A } \\ \text { FAD } 205 \\ \text { B } \end{gathered}$ | Pattern Making \& Garment Construction II | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
|  | FC/SDC | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  | CC\&EC | - | - | - | 50 | - | 50 | 1 |
|  |  |  |  | Total | 800 |  |  | 16 |


| SEMESTER III |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Subjects | Paper <br> Theory/ Practical | Instruction Hrs/week | Duratio <br> n of <br> Exam <br> (Hrs) | Marks |  |  | $\begin{gathered} \text { CREDI } \\ \mathrm{T} \end{gathered}$ |
|  |  |  |  |  | IA | $\begin{gathered} \text { Exa } \\ \mathrm{m} \end{gathered}$ | Total |  |
|  | Language I | Theory | 4 | 3 | 30 | 70 | 100 | 2 |
|  | Language II | Theory | 4 | 3 | 30 | 70 | 100 | 2 |
| FAD 303 A | Textile Wet Processing | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 303 B |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 304 A FAD 304 B | Fashion Art \& Design | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| $\begin{aligned} & \text { FAD } 305 \mathrm{~A} \\ & \text { FAD } 305 \text { B } \end{aligned}$ | Pattern Making \& Garment Construction III | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
|  | FC/SDC | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  | CC\&EC | - | - | - | 50 | - | 50 | 1 |
|  |  |  |  | Total | 800 |  |  | 16 |


| SEMESTER IV |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Subjects | Paper <br> Theory/ <br> Practical | Instruction Hrs/week | Duratio n of Exam (Hrs) | Marks |  |  | $\begin{gathered} \text { CREDI } \\ \mathrm{T} \end{gathered}$ |
|  |  |  |  |  | IA | $\begin{gathered} \text { Exa } \\ \mathrm{m} \\ \hline \end{gathered}$ | Total |  |
|  | Language I | Theory | 4 | 3 | 30 | 70 | 100 | 2 |
|  | Language II | Theory | 4 | 3 | 30 | 70 | 100 | 2 |
| FAD 403 A | History of Textiles \& Costumes | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 403 B |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 404 A | Textile \& Apparel Testing | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 404 B |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 405 A FAD 405 B | Apparel Production | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
|  | FC/SDC | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  | CC\&EC | - | - | - | 50 | - | 50 | 1 |
|  |  |  |  | Total | 800 |  |  | 16 |


| SEMESTER V |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Subjects | Paper Theory/ Practical | Instructio <br> n <br> Hrs/week | Duration of Exam (Hrs) | Marks |  |  | CREDIT |
|  |  |  |  |  | IA | $\begin{gathered} \hline \text { Exa } \\ \mathrm{m} \end{gathered}$ | Tota 1 |  |
| FAD 501 | Fashion Retail, Marketing \& Merchandising | Theory | 4 | 3 | 50 | 100 | 150 | 3 |
| FAD 502 A | Computer Aided Apparel Design | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 502 B |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 503 A | Fashion Accessories | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 503 B |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 504 A | Draping | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 504 B |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 505 A | Needle Craft | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 505 B |  | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 506 | Internship* | - | 6 | Report Evaluation | 50 | 100 | 150 | 3 |
|  | SDC | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  |  |  |  | Total |  | 1000 |  | 20 |

*The student shall undergo 30 days Internship training after approval from the institute during the semester holidays between $4^{\text {th }}$ and $5^{\text {th }}$ semesters.

| SEMESTER VI |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Subjects | Paper <br> Theory/ <br> Practical | Instruction Hrs/week | Duratio n of Exam (Hrs) | Marks |  |  | CREDIT |
| CODE |  |  |  |  | IA | $\begin{gathered} \text { Exa } \\ \mathrm{m} \end{gathered}$ | Tota 1 |  |
| FAD 601 | Fashion Business Management | Theory | 4 | 3 | 50 | 100 | 150 | 3 |
| FAD 602 | Fashion Event Management | Theory | 4 | 3 | 50 | 100 | 150 | 3 |
| FAD 603 A | Garment Surface | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 603 B | Ornamentation | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 604 A | Apparel Quality | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 604 B | Management | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 605 A | sual Merchandising | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 605 B | sual Merchandising | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
| FAD 606 A | Fashion Portfolio \& | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
| FAD 606 B | Design Collection | Practical | 3 | 3 | 15 | 35 | 50 | 1 |
|  | SDC | Theory | 3 | 3 | 30 | 70 | 100 | 2 |
|  |  |  |  | Total | 1000 |  |  | 20 |

# I Semester <br> B.Sc. (Fashion \& Apparel Design) <br> FIBRE AND YARN SCIENCE 

FAD 103 A
Total Hours: 48
Exam Hours: 03
Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To impart the knowledge of fibres, sources, identification and their properties
- To provide students with the knowledge on yarn types and their properties


## Unit 1

4 hrs.
Introduction to textile fibers. Terminology - Textile, fiber, yarn, staple and filament. Sources and classification of fibers, general, physical and chemical properties of textile fibers.

## Unit 2

8 hrs.
Polymers - Polymerization, degree of polymerization. Different types of polymers addition and condensation, orientation and crystallinity.

## Unit 3

6 hrs.
Cellulose fibers - Cotton, flax, linen. Protein fibers - Silk, wool. Regenerated cellulose fibers - Viscose rayon, acetate rayon, tencel, modal, bamboo - source, properties and end use.

## Unit 4

6 hrs.
Synthetic fibers - Nylon, polyester, acrylic, modacrylic, polypropylene, elastomeric fibers (Spandex) - Properties and end use. Texturization - Types (simple \& complex yarns), properties and end use.

## Unit 5

12 hrs.
Classification of yarn - Simple, fancy \& textured. Methods of spinning - Ring frame, open end, air jet \& rotor spinning.

Unit 6
12 hrs.
Blends - Types, advantages, properties and end uses. Sewing threads - Types, properties and end uses. Yarn testing, TPI, yarn count - direct system and indirect system.

## References:

1. Bernard P Corbman, "Textiles: Fiber to Fabric", McGraw Hill Education, $6^{\text {th }}$ edition, London, 1985.
2. Billie J Collier, Phyllis G Tortora, "Understanding Textiles", Pearson, $6^{\text {th }}$ edition, 2000.
3. Gilbert R Merrill, "Cotton Opening and Picking", Universal Publishing Corporation, USA, 1999.
4. Gohl E P G and Velensky L D, "Textile Science", CBS Publishers and Distributors, 2 ${ }^{\text {nd }}$ edition, New Delhi, 2005.
5. Gordon Cook J, "Hand Book of Textile Fibres", Woodhead Publishing, $5^{\text {th }}$ revised edition, 1984.
6. Hall A J, "The Standard Hand Book of Textiles", Woodhead Publishing, $8^{\text {th }}$ edition, 2004.

## I Semester <br> B.Sc. (Fashion \& Apparel Design) <br> FIBRE AND YARN SCIENCE

| Practicals | Exam Hours: 03 |
| :--- | ---: |
| FAD 103 B | Exam Marks: 35 |
| 16 practicals of $\mathbf{3}$ hrs each | Internal Assessment: 15 |

Unit 1 4
Identification of different natural fibres - Cotton, Silk, Wool, by physical (feel test, burning test and microscopic test) and chemical (solubility test).

Unit 2
4
Identification of different man-made fibres - Viscose, polyester, nylon by physical (feel test, burning test and microscopic test) and chemical (solubility test).

Unit 3
Yarn properties - Yarn length (staple / filament), yarn twist and yarn count. Sewing thread - No. of ply, yarn twist, yarn count, yarn defects, visual inspection of various sewing thread packages.

Unit 4
Identification of yarns by physical method - Spun, filament yarns, ply and novelty yarns.

# I Semester <br> B.Sc. (Fashion \& Apparel Design) ELEMENTS OF FASHION \& DESIGN 

FAD 104 A Total Hours: 48

Exam Hours: 03
Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To enable students to understand the concept of elements and principles of design
- To introduce students to basic art media \& illustration techniques

Unit 1
6 hrs.
Art Media and its application - Pencils, colour pencils, oil \& dry pastels, water colour, poster colours, acrylic colours, fabric colours, frottage, montage, inks.

Unit 2
6 hrs.
Basic sketching techniques - Hatching, shading, stippling, scribbling, crisscross and parallel lines. Enlargement and reduction of image.

## Unit 3

12 hrs.
Elements of design - Point, line, form, shape, space, size, texture and colour, principles of design - Harmony, proportion, balance, rhythm and emphasis. Colour theory definition and dimensions of colour, colour wheel, value \& grey scale, Prang, Munsell colour system, Pantone colours, colour schemes, colour psychology.

## Unit 4

6 hrs.
Fashion - Definition, origin. Terminologies - Trend, silhouette, fad, classic, chic, Pret a porter, muse, Avant-garde, Haute Couture, street fashion, acceptance, style, fashion cycle, types of cycle. Fashion theories.

## Unit 5

12 hrs . Elements of fashion illustration - Introduction to fashion illustration, history, importance, artists and illustrators of national and international repute.

## Unit 6

8 hrs.
Introduction to anatomy, study of bone and muscular structure, proportions of male, female and children. Study of face, torso, legs and arms. Fashion figure -8 head, 10 head and 12 head theory.

## References:

1. Bride M Whelan, "Color Harmony 2: A guide to creative color combinations", Rockport Publishers, 1997.
2. David Piper, "The Joy of Art", Spring Books, London, 1989.
3. Edith Tomory, "A History of Fine Arts in India and the West", Orient Black Swan, New Delhi, 2015.
4. Estel Vilaseca, "Essential Fashion Illustration: Color + Medium", Rockport Publishers, 2008.
5. Janson H W \& Anthony F Janson, "History of Art", Prentice Hall, Revised edition, New Jersey, 2004.
6. Peter Stanyer, "The Complete Book of Drawing Techniques: A Professional Guide for the Artist", Arcturus Publishing Ltd., 2010.

## I Semester <br> B.Sc. (Fashion \& Apparel Design) <br> ELEMENTS OF FASHION \& DESIGN

Practicals
FAD 104 B
16 practicals of 3 hrs each

Exam Hours: 03
16 practicals of 3 hrs each
Exam Marks: 35
Internal Assessment: 15

Unit 1
Art media and its applications, line sketching and free hand drawing, observation drawing, simple rendering of art materials using pencil and colour pencils, still life of simple objects and fabrics draped at a distance using wet media, nature sketch of flowers and leaves using pastels and charcoal, landscape painting using mix media, perspective drawing - 1pt, 2pt, 3pt.

## Unit 2

Elements of design: Point, line, shape, space, colour and texture. Principles of design proportion, balance, rhythm, emphasis and harmony. Application of free hand drawing.

Unit 3
4
Colour wheel, primary, secondary \& tertiary colours, grey scale, value scale (10 values), color scheme monochromatic, achromatic, complementary, double split, analogous using natural / geometric / abstract / stylized designs, tints, shades, cool \& warm colour.

## Unit 4

Fashion illustration basics, stick, block, \& flesh figures. 8 head, 10 head, 12 head figures in simple standing poses. Fabric rendering - Learning to simulate textures of various fabrics - Cotton, silk, fur, denim, print, georgette, chiffon, knitted, crochet, lace, embroidered.

## I Semester <br> B.Sc. (Fashion \& Apparel Design) PATTERN MAKING \& GARMENT CONSTRUCTION I

FAD 105 A
Total Hours: 48

Exam Hours: 03
Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To impart skills in basic techniques of pattern making
- To provide the knowledge of different machines used for sewing


## Unit 1

5 hrs.
Introduction to pattern making, pattern making terminologies \& symbols (notches, punch / circles). Pattern information - Block pattern, bodice, trimming, bias, grain, seam allowance.

## Unit 2

6 hrs.
Introduction to tools for pattern making and garment construction - Measuring tools, marking tools, cutting tools, sewing tools, pressing tools, types of paper used for pattern making. Sewing threads - function, performance, characteristics. Body measurements Importance \& classification.

## Unit 3

12 hrs .
Sewing machine - Introduction, history, domestic sewing machine, industrial sewing machine, difference between domestic \& industrial sewing machine, parts of a sewing machine, Varieties of industrial sewing machines - Single \& double needle machine lock stitch, chain stitch machines, over-lock machine, flat lock machine, sewing machine needles - types, parts \& functions, care and maintenance of sewing machine.

## Unit 4

12 hrs.
Introduction to basic hand stitches - Application of temporary and permanent stitches, methods, importance and applications of basting, running, tacking, hand overcast, button hole, hemming stitches - plain \& blind hemming. Stitches \& Seams - Definition, terminologies, specification, stitch properties, Seams - Definition, classification (ASTM standards), seam dimensions, types of seams \& seam finishes.

Unit 5
7 hrs.
Figure types \& figure analysis - leg types, arm types, shoulders, abdomen, bust back relationship, waist hip relationship and stance).

Unit 6
6 hrs.
Pattern making - Introduction - types - commercial, custom made \& made to measure, preparation of basic block - men, women \& children.

## References:

1. Allyne Bane, "Flat Pattern Design", McGraw-Hill Inc., US, 1972.
2. Gerry Cooklin, "Introduction to Clothing Manufacture", Wiley-Blackwell, $2^{\text {nd }}$ edition, 2008.
3. Harold Carr \& Barbara Latham, "The Technology of Clothing Manufacture", Oxford Publications, USA, 1994.
4. Helen J Armstrong, "Pattern Making for Fashion Design", Pearson Education India, 5" edition, 2013.
5. Ruth Sleigh Johnson \& Martin Palmer, "Practical Sewing Techniques", A \& C Black Visual Arts, London, 2011.
6. Winfred Aldrich, "Metric Pattern Cutting", Blackwell Science, United Kingdom, 1988.

## I Semester <br> B.Sc. (Fashion \& Apparel Design) <br> PATTERN MAKING \& GARMENT CONSTRUCTION I

Practicals
Exam Hours: 03
FAD 105 B
16 practicals of 3 hrs each

## Unit 1

Sewing machine - Types, functions, attachments, uses. Sketching of basic sewing machine and parts, threading the single needle machine, loading bobbin and bobbin case, fixing and removing the needle, care and maintenance of sewing machines, oiling. Practice on paper, stitching on fabric (straight, curves, corners and circular), sewing techniques.

## Unit 2

Basic hand stitches - Basting, running, tacking, hand overcast, buttonhole, hemming stitches - plain \& blind hemming, slip stitch.

Unit 3
Seam \& seam finishes- Plain, flat fell, French, turned \& stitched, lapped, double top, pinked, over lock, \& pinked and stitched, hands on over lock machine sample preparation.

Unit 4
8
Pattern preparation of women's basic blocks front, back, sleeve \& skirt, preparation of muslin basic blocks, test fitting, front, back, sleeve and skirt.

# II Semester <br> B.Sc. (Fashion \& Apparel Design) FABRIC SCIENCE AND ANALYSIS 

## Objectives:

- To impart knowledge on different fabrics
- To foster an understanding of the various fabric formation techniques.


## Unit 1

4 hrs.
Introduction to fabrics - Classification based on manufacturing technology. Methods of fabric formation- Woven, knitted and nonwoven - properties and enduses.

Unit 2
10 hrs .
Woven fabric formation - Weaving preparatory, objectives and process of winding, warping, sizing, drawing, denting and weft winding. Classification of woven fabrics Khadi, handloom and powerloom fabrics. Working principle of conventional \& unconventional looms. Study of primary, secondary and tertiary motions.

## Unit 3

6 hrs.
General characteristics of woven fabrics and their importance - Yarn count, thread density, fabric weight and selvedge types.

Unit 4
12 hrs .
Elementary weaves - Classification of woven fabrics, characteristics, salient features of plain, twill, satin/sateen weave - its modifications. Fabric design and graphical representation of the above weaves. Introduction and salient features of crepe, georgette, chiffons, extra threads, warp and weft pile and brocade and damask.

## Unit 5

8 hrs.
Introduction to knitting -Terminologies, classification, difference between warp and weft knitted fabric, study of single jersey, rib, interlock and purl, modified single jersey. Geometric \& dimensional properties of single jersey knitted fabrics \& their importance.
Unit 6 hrs.

Non-wovens - Introduction, definition and types - Needle punch, spun bonding technique and felting and application in various fields.

## References:

1. Bernard P Corbman, " Textile: Fiber to Fabric", McGraw Hill Education, $6^{\text {th }}$ edition, 1985. 2. Gokarneshan N, "Fabric Structure \& Design", New Age International Private Limited, $2^{\text {nd }}$ edition, 2009.
2. Grosicki Z J, "Watson's Textile Design \& Colour", Woodhead Publishing, $7^{\text {th }}$ edition,1975.
3. Hayavadhana J, " Woven Fabric Structure Design \& Product Planning", WPI, 2015.

# II Semester <br> B.Sc. (Fashion \& Apparel Design) FABRIC SCIENCE AND ANALYSIS 

Practicals
FAD 203 B
16 practicals of $\mathbf{3}$ hrs each

Exam Hours: 03
FAD 203 B
Exam Marks: 35
Internal Assessment: 15

## Unit 1

Geometric parameters - Warp and weft count, thread density, cover factor, crimp\%, fabric thickness, fabric weight / GSM of varieties of poplin, long cloth \& casement fabrics. Sample development of woven fabric using satin ribbons for the weaves.
a. Plain and its variations (rib and matt)
b. Twill (RHT and LHT), herringbone, pointed
c. Satin and sateen
*Sample size $5 \times 5$ inch for each sample
*Criteria for collecting the sample - Suiting, shirting and dressmaterials.

Unit 2
Collection and portfolio preparation of different commercial samples with different weave structures - Organdy, muslin, taffeta, shantung, canvas, chiffon, georgette, denim, gabardine, satin, sateen, brocade, damask, leno or gauze. Knit structures single knits - single jersey, lacoste, double knits - ribknit, purl knit, inter lock knit, cable fabric, bird'seye, cardigans, milano ribs, pointelle.

Unit 3
Collection and development of fabric portfolio of the different commercial samples with different weaves and weight.
Apparel - Women's wear (formal, casual, party, sports / activewear, leisurewear)
2 samples for the each category (sample size - 2 " x 2 ").
Furnishing - Fabric used for curtains, upholstery(furniture cover cloth)
2 samples (samplesize - 4"x4").
House holds application - Kitchen towels, mopcloth, carpets, tablecloth.
2 samples for each category (sample size 4"x4").
Support materials for garments and trims - Interlinings, linings, tapes, elastic, shoulder pad.

## II Semester <br> B.Sc. (Fashion \& Apparel Design) <br> FASHION ILLUSTRATION AND DESIGN

FAD 204 A
Exam Hours: 03
Total Hours: 48
Exam Marks: 70
Internal Assessment: 30

## Objectives

- To introduce fashion illustration techniques and its role in fashion design
- To impart knowledge on figure stylization techniques


## Unit 1

Introduction to fashion illustration and brief history of fashion illustration, study of two well-known fashion illustrators (Reve' Bouche', David Downton, Jason Brooks, Lorenzo Mattotti).

## Unit 2

8 hrs.
Figure stylization - Study of various proportions, the balance line in drawing figures, gestures and movements. 8 head, 10 head, 12 head figures, the fashion face, arms, legs, hands and feet. Illustrating male figure and children, figure analysis, body types, designing for diverse body types and ages and foreshortening of figures.

## Unit 3

10 hrs .
Garment features - Cuffs, collars, yokes, pockets, sleeves, skirts (pencil, flared, circular), and trousers. Types of silhouettes, formal, casual - men and women, minis, maxis, unisex, fit woman, glamorous woman.

Unit 4
8 hrs.
Fashion designer - Qualities, types of fashion designers. Study of five International and Indian fashion designers - style, technique, design collection.

## Unit 5 <br> 8 hrs.

Clothing - Definition, need for clothing, clothing as modesty, protection, status and religious symbol.

Unit 6
8 hrs .
Fashion psychology - Role of fashion in costume change. Human behavior in clothing \& gender differentiation.

## References:

1. Barrington Barber, "The Complete Book of Drawing: Essential Skills for Every Artist", Arcturus Publishing Limited, London, 2016.
2. Elisabetta Drudi \& Tiziana Paci, Vanessa Round, "Figure Drawing for Fashion Design", Pepin Press B V, Amsterdam, 2016.
3. Patrick John Ireland, "Fashion Design Drawing and Presentation", Om Books International, New Delhi, 2005.
4. Patrick John Ireland, "Fashion Design Illustration: Women", Bats Ford Ltd., London, 1997.
5. Waddell, Gavin, "How Fashion Works", Ferguson Publishing, New York, 2011.
6. Wendon Blake, John Lawn, "Portrait Drawing: A Step-by-Step Art Instruction Book", Watson-Guptill, Windsor, New York, 2006.

## II Semester <br> B.Sc. (Fashion \& Apparel Design) FASHION ILLUSTRATION AND DESIGN

| Practicals | Exam Hours: 03 |
| :--- | ---: |
| FAD 204 B | Exam Marks: 35 |
| 16 practicals of 3hrs each | Internal Assessment: 15 |

Unit 1
Fashion illustration - 8 head, 10 head, 12 head figures standing, moving and drawing male, female and children figures, model drawing.

## Unit 2

Fashion figure details and stylization of various parts, including the fashion face, torso, limbs and features using various media.

Unit 3
Garment features - Types of collars, yokes, pockets, cuffs, sleeves (5 each).
Drawing of fashion silhouettes - Types of silhouettes, blouses, shirts, skirts, trousers, dress.

Unit 4
Foreshortening of figures, grouping of figures - Thematic figure composition, preparation of portfolio of five designs each inspired by one Indian and one international designer.

## II Semester <br> B.Sc. (Fashion \& Apparel Design) <br> PATTERN MAKING \& GARMENT CONSTRUCTION II

FAD 205 A
Exam Hours: 03
Total Hours: 48
Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To introduce the concept of garment making
- To impart knowledge and skills required for garment components construction


## Unit 1

8 hrs.
Drafting - Introduction, technique - flat pattern technique - application \& uses. Pivot, slash \& spread method - dart manipulation - conversion of darts to tucks, pleats, gathers, seam lines.

## Unit 2

4 hrs.
Fullness - Introduction, types \& applications - Darts, pleats, tucks, gathers, godets.

## Unit 3

12 hrs.
Major components - Sleeves - Definition, terminologies, types - sleeves along with bodice and set in sleeves, Collars - Definition, terms, classification, and types - Peter pan, sailor, turtle collar, shawl, formal shirt collar, mandarin, collar with stand \& its variations\& construction, Cuffs - definition, terms, types and construction, Yokes Definitions, purpose, types - with fullness \& without fullness, shapes \& construction.

Unit 4
12 hrs.
Minor components - Pockets - Definitions, purpose, patch pockets, patch pockets with flap, seam pockets, welt pockets \& variations. Plackets - Definition, types - self, front placket, continues bound placket, two piece sleeve placket and shirt placket, Waist band finishes - Trouser, skirt \& loop finish. Neckline finishes - Piping, facing and bias binding.

## Unit 5

8 hrs.
Garment categories - with waistline \& without waist line, silhouettes, torso dress, princess panel \& drafting. Skirts - Flared, circular, gathered, pleated and basic waist band application.

Unit 6
4 hrs.
Garment fasteners - Press buttons, hook \& eye, snappers, rivets, buckles, zippers, interlining and interfacing.

## References:

1. Colette Wolff, "The Art of Manipulating Fabric", Wisconsin House Publication, 2014.
2. Editors of Reader's Digest, "Reader's Digest: New Complete Guide to Sewing", Reader's Digest, 2010.
3. Helen J Armstrong, "Pattern Making for Fashion Design", Pearson Education India, 5 ${ }^{\text {th }}$ edition, 2013.
4. Mary Marthew, "Practical Clothing Construction Part I \& II", Cosmic Press, Chennai, 1986.
5. Winfred Aldrich, "Metric Pattern Cutting", John Willey \& Sons, $3^{\text {rd }}$ edition, 1994.
6. Wendy Gardiner, "Sewing Basics", Hauppauge, Barron's, New York, 2003.

## II Semester

B.Sc. (Fashion \& Apparel Design)

PATTERN MAKING \& GARMENT CONSTRUCTION II
Practicals
Exam Hours: 03
FAD 205 B
16 practicals of 3hrs each

## Unit 1

Fullness - Gathers, pleats, ruffles, tucks, godets.

Unit 2
Dart manipulation - Conversion of darts to tucks, pleats, gathers, seam lines. (Pivot, slash \& spread method)

Unit 3
Development of samples for components.
Sleeves - Plain, gathered, raglan, kimono, bell.
Collars - Peter pan, turtle neck, Chinese, shawl, shirt.
Cuffs - Single, double cuff\& shaped.
Yokes-With and without fullness, style lines.
Pockets-Patch pockets, patch pockets with flap, seam pockets.
Neckline finishes - Facing, shaped facing and piping/binding.
Plackets and finishing- continuous/ one piece, bound/ two piece placket.
Zippers- Applications lapped zip, centered zip, concealed zip, fly zip.
Waist band finish- with / without loops.

Unit 4
Design and develop a kid's garment - Jabla, waistline frock, romper.

# III Semester <br> <br> B.Sc. (Fashion \& Apparel Design) <br> <br> B.Sc. (Fashion \& Apparel Design) <br> TEXTILE WET PROCESSING 

FAD 303 A Total Hours: 48

Exam Hours: 03
Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To impart knowledge of textile and garment wet processing
- To provide comprehensive knowledge about various chemicals, dyes and auxiliaries used for chemical processing


## Unit 1

4 hrs.
Introduction to wet processing, terminologies, sequence of wet processing operations for cotton, silk, wool and synthetic fabric.

## Unit 2

12 hrs.
Preparatory processes - Cotton yarn and fabrics-Different methods and process parameters used for singeing, desizing, scouring, bleaching and mercerization. Silk yarn and fabrics - Degumming, bleaching. Wool - Scouring, carbonization and bleaching. Brief discussion on preparatory process used for polyester blends and polyester fabrics. Brief discussion on equipment and machineries used for preparatory processing. Garment processing and finishing, importance of garment dyeing and finishing.

## Unit 3

6 hrs.
Dyeing - Introduction \& classification. Methods of dyeing - Stock, yarn, piece and union, application of direct, basic, acid, vat, sulphur dyes, reactive and disperse dyes for cotton, silk and wool yarn and polyester fabrics.

Unit 4
8 hrs.
Printing methods - Block, screen, transfer and digital printing. Styles of printing - Direct, resist, discharge and transfer, after treatments for dyed and printed goods washing, steaming and drying.

Unit 5
12 hrs.
Finishes - Definition, classification of finishes and their application in garment industry. Calendaring, napping, starching, shearing, sueding, softening, stiffening, stentering, sanforizing, antimicrobial, antistatic, crease resistant, flame resistant, mothproof, shrinkage control, water repellent, water proof, and soil-release finishes, washes and finishes for denim - Methods and machines used and dry process of denim finishes.

## Unit 6

6 hrs.
Care of fabrics - Principles of laundering. Types - Hand wash, machine wash and dry cleaning. Stain removal, various solvents used and different methods of washing, difference between soaps and detergents.

## References:

1. Asim Kumar Roy Choudhury, "Principles of Textile Finishing", Woodhead Publishing, London, 2017.
2. Leslie W C Miles, "Textile Printing", Society of Dyers \& Colorists, United Kingdom, 2003.
3. NPCS Board of Consultants, "Handbook on Textile Auxiliaries: Dyes and Dye Intermediates Technology", Asia Pacific Business Press Inc., New Delhi, 2009.
4. NIIR Board, "The Complete Technology Book on Textile Processing with Effluent Treatment", Asia Pacific Business Press Inc., New Delhi, 2003.
5. Souza Noemia D, "Fabric Care", New Age International Ltd., New Delhi, 1998.
6. Vigo T L, "Textile Processing and Properties", Elsevier, Vol.11, London, 1994.

## III Semester

## B.Sc. (Fashion \& Apparel Design) <br> TEXTILE WET PROCESSING

## Practicals <br> FAD 303 B <br> 16 practicals of 3hrs each

Exam Hours: 03
Exam Marks: 35
Internal Assessment: 15

## Unit 1

Preparatory process - Desizing, scouring, bleaching and mercerization of cotton yarn / fabric. Degumming and bleaching of silk yarn.

## Unit 2

Dyeing of cotton yarn / fabric by direct, reactive and vat dyes.

## Unit 3

Dyeing of silk yarn / fabric by acid, reactive dyes and polyester yarn/fabric using disperse dyes.

## Unit 4

Printing of fabric using screen and block - pigment, reactive and direct dyes. Resist style of printing - Tie and dye / shibori / batik, using any of the above technique develop a product.

## III Semester <br> B.Sc. (Fashion \& Apparel Design) <br> FASHION ART AND DESIGN

FAD 304 A
Exam Hours: 03
Total Hours: 48
Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To impart knowledge on fashion art
- To understand the dress designing technique for various figure types


## Unit 1

6 hrs .
Design - Definition, design development, motif - types, pattern and layout. Repeats - 1/2, $1 / 4,3 / 4$, full, mirror, brick. Study of motifs from India, China, Japan, Persia. Source of inspiration for designers.

## Unit 2

8 hrs.
Fashion design - Definition, scope \& importance, fashion categories based on age and activity - types - casual, formal, sports and ethnic.

## Unit 3

8 hrs.
Designing of dress based on figure types - Study of figures, use of colours, style features. Application of design principles on garment to create optical illusion.

## Unit 4

8 hrs.
Clothing and personality, clothing and attitude, clothing and motivation, grooming.

## Unit 5

12 hrs.
Flat sketch - Definition, importance and application, method of drawing flat sketches, flats for men, women and children's wear. Spec-sheet - Definition, uses \& technique, designer spec.

## Unit 6

6 hrs.
Study of advanced illustrative techniques and three dimensional views.

## References:

1. Bina Abling, "Fashion Sketchbook", Bloomsbury Academic USA, $6^{\text {th }}$ edition, 2015.
2. George Van Ness Dearborn, "The Psychology of Clothing", Johnson Reprint Corp, Kraus Reprint Co., New York, 1970.
3. Helen L Brockman, "Theory of Fashion Design", John Wiley and Sons Inc., New York, 1990. 4. Michele Wesen Bryant, "Fashion Drawing: Illustration Techniques for Fashion Designers", Laurence King, London, 2016.
4. Peacock J, "Fashion Source Books", Thames and Hudson, London, 1998.
5. Stecker P, "The Fashion Design Manual", Macmillan, Australia, 1997.

## III Semester

## B.Sc. (Fashion \& Apparel Design) <br> FASHION ART AND DESIGN

Practicals<br>FAD 304 B<br>16 practicals of 3hr seach

Exam Hours: 03
Exam Marks: 35

## Unit 1

Motif - Sketching \& rendering of natural, stylized, geometric, abstract motifs.
Design repeats $-1 / 4^{\text {th }}, 1 / 2^{\text {th }}, 3 / 4^{\text {th }}$ drop, full, brick, mirror, and ogee. Pattern - Sketching \& rendering of horizontal \& vertical.

Unit 2
Sketching \& rendering of eyes, nose, lips, and ears. Hair styling - women, men, different hair coloring, retro, punk, hippie, traditional and bridal.

Unit 3
Figure drawing - Fashion figure, stylized figure of 10 and 12 head for different figure postures.

Unit 4 6

Fabric rendering - Fashion rendering on croquis, woven - cotton, denim, lace, net, corduroy, printed - natural, abstract, stylized, knits - pearl, rib and cable.
Fashion sketching of advanced illustration techniques and 3 dimensional views. (Only hand) Development of research boards on inspiration, mood, colour and texture.

## III Semester <br> B.Sc. (Fashion \& Apparel Design) PATTERN MAKING \& GARMENT CONSTRUCTION III

FAD 305 A
Total Hours: 48

Exam Hours: 03
Exam Marks: 70
Internal Assessment: 30

## Objective:

- To familiarize with clothing construction for different sizes \& categories.
- To familiarize with the concept of handling of different fabrics, common fitting problems and their correction.

Unit 1
6 hrs.
Pattern development - Introduction, techniques - manual and computerized pattern development, application of mini marker. Software used for pattern development. Introduction to digitizer, plotter and scanner.

Unit 2
10 hrs.
Special fabrics - Introduction, handling special fabric - factors considered for garment construction - stretch fabrics, knit, checks, plaids, velvet, leather, fur \& lace. Interlining \& interfacing - materials, types, properties and applications.

## Unit 3

8 hrs .
Layout - Definition, importance, principles, types of layout, importance of fabric estimation, advantages, methods of estimation of material requirement for garment formula method of estimation.

Unit 4 hrs. Fitting - Principles of fitting, standards for a good fit, e-fitting. Pattern alteration techniques - Pivot, slash \& seam method.

## Unit 5

8 hrs.
Grading - Definition, sizes, principles, types, grading points \& importance of manual and computerized grading and software used for grading.

## Unit 6

8 hrs .
Foundation garments - Introduction, materials used \& types of fitting for men's innerwear briefs\& trunks, swimwear, women's innerwear - brassier, panties \& swimwear. Bifurcated garments - Introduction of culottes, trouser \& its variations.

## References:

1. Elizabeth G Liechty et al., "Fitting \& Pattern Alteration: A Multi-Method Approach to the Art of Style Selection, Fitting, and Alteration", Fairchild Books, New York, 2016.
2. Helen Joseph Armstrong, "Pattern Making for Fashion Design", Upper Saddle River, Pearson Education, Prentice Hall, New Jersey, 2014.
3. Janet Ward \& Martin Shoben, "Pattern Cutting and Making up", Routledge, London, 2015.
4. Martin Shoben \& Patrick Taylor, "Grading for the Fashion Industry: the Theory and Practice", LCFS Fashion Media, London, 2007.
5. Natlie Bray, "Dress Fitting - Basic Principles and Practice", Oxford Malden, MA Blackwell Science, 2006.
6. Winfred Aldrich, "Metric Pattern Cutting", Blackwell Science, United Kingdom, 1988.

## III Semester <br> B.Sc. (Fashion \& Apparel Design) PATTERN MAKING \& GARMENT CONSTRUCTION III

Practicals
Exam Hours: 03
FAD 305 B
Exam Marks: 35
16 practicals of 3 hrs each
Internal Assessment: 15

Unit 1 2
Designing \& construction of garments with style features using drafting, flat pattern technique - women's casual ladies shirt \& formal skirt.

Unit 2
6
Designing and construction of garment with style features, women's formal shirt and formal trouser.

Unit 3 6
Designing and construction of garment with style features, any one women's Indian traditional wear. Designing and construction of garment with style features, women's waist coat.

Unit 4
Manual and computerized grading of patterns - Men's, women's and kids.

# IV Semester <br> B.Sc. (Fashion and Apparel Design) <br> HISTORY OF TEXTILES AND COSTUMES 

FAD 403 A
Total Hours: 48

Exam Hours: 03
Exam Marks: 70
Internal Assessment: 35

## Objectives:

- To impart knowledge of textiles of previous centuries with reference to fashion industry
- To understand and learn symbolism of motifs and colours of different traditional textiles of India


## Unit 1

4 hrs.
Introduction to world costumes \& textiles - History of costumes, ancient textiles \& motifs of world.

## Unit 2

10 hrs.
Pre-historic textiles \& costumes - Indus Valley, Egyptian, Mesopotamian, French, Greek, Roman, French, Japanese.

Unit 3
8 hrs
French revolution, French costumes from Renaissance to 20th century. Victorian era, WW I \& WW II, factors influencing costume change.

Unit 4
10 hrs.
Costumes of medieval India - Vedic, Mauryans, Kushans, Satavahanas, Guptas \& Mughals.

## Unit 5

10 hrs .
An overview of textiles - Textile design, symbolic motifs used - Woven - Brocades of Banaras, Baluchuri, Chanderi, Tanchoi, Kanjivaram, Himru, Amru, Mashru \& Dacca muslin, Dyed - tie \& dye, Ikat, double Ikat, Bandini, Printed - block, screen, applied dyed \& painted textiles - Kalamkari, Madhubani, Warli.

## Unit 6

6 hrs.
Study of regional textiles \& costumes of India - North, East, West \& South.

## References:

1. Francois Boucher, "A History of Costume in the West", Thames and Hudson, London, 2004.
2. Gertrud Lehnert, "A History of Fashion in the 20th Century", Konemann Publications, 2000.
3. Jamila Brij Bhusan, "Master Piece of Indian Jewellery", Taraporevala, Bombay, 1979.
4. Jamila Brij Bhusan, "The Costumes and Textiles of India", Taraporevala, Bombay, 1958.
5. Parul Bhatnagar, "Traditional Indian Costumes \& Textiles", Abhishek Publications, 2006.
6. Melissa Leventon, "Costume Worldwide: a Historical Sourcebook", Thames \& Hudson, London, 2008.

## IV Semester <br> B.Sc. (Fashion \& Apparel Design) HISTORY OF TEXTILES AND COSTUMES



# IV Semester <br> B.Sc. (Fashion and Apparel Design) <br> TEXTILE AND APPAREL TESTING 

FAD 404 A
Total Hours: 48

Exam Hours: 03
Exam Marks: 70
Internal Assessment: 35

## Objectives

- To familiarize students with textile testing methods
- To impart knowledge of textile product assessment according to standards


## Unit 1

3 hrs.
Introduction to textile testing, objectives of testing, sample selection techniques for testing.

## Unit 2

7 hrs.
Fiber testing - Objectives and procedure of testing staple length, fibre fineness, fibre strength, maturity and rigidity. Yarn testing - yarn count, yarn twist, twist direction, amount of twist and effects of twist on fabric properties, measurement of twist.

Unit 3
12 hrs.
Fabric testing - Fabric dimensions - Importance and procedure of testing length, width, thickness and their applications. Determination of fabric weight - GSM and its application to different fabrics, cover factor. Objectives and procedure to determine air permeability, stiffness, drape, crease resistance, abrasion resistance, pilling, fabric shrinkage, bow and skew.

Unit 4
6 hrs.
Color fastness of textiles - Terminology, objectives and procedure of testing colour fastness to laundering, rubbing, light and perspiration.

## Unit 5

8 hrs.
Performance properties of fabrics - Terminology, objectives and procedure of testing tensile strength, bursting strength, tear strength.

## Unit 6

12 hrs.
Garment accessories testing - Terminology, objectives and procedure of testing of fusible interlinings, zippers, sewing threads, buttons, snap fasteners - Wear test, tensile, color fastness and dimensional stability testing. Garment quality control - Dimensional properties, button and seam strength, seam puckering.

## References:

1. Arindam Basu, "Textile Testing", South India Textile Research Association, Chennai, 2006.
2. Booth J E, "Principles of Textile Testing", CBS Publishers and Distributors, New Delhi, 1996.
3. Jewel Raul, "Textile Testing", APH Publishing house, New Delhi, 2014.
4. Patricia Dolez, Olivier Vermeersch \& Valerio Izquierdo, "Advanced Characterization and Testing of Textiles", Woodhead Publishing, $1^{\text {st }}$ edition, United Kingdom, 2017.
5. Saville B P, "Physical Testing of Textiles", Woodhead Publishing Ltd., Cambridge, 1999.
6. Sheraz Ahmad et al., "Advanced Textile Testing Techniques", CRC Press Published, $1^{\text {st }}$ edition, New Delhi, 2017.

## IV Semester <br> B.Sc. (Fashion \& Apparel Design) TEXTILE AND APPAREL TESTING

Practicals Exam Hours: 03

FAD 404 B
Exam Marks: 35
16 practicals of 3hrs each
Internal Assessment: 15

Unit 1 5
Fabric construction particulars - Aerial weight, thickness, thread count, cover factor. Analyze fabric construction particulars for any 3 fabrics.

Unit 2
Determination of tear strength, tensile strength, pilling resistance, stiffness, crease resistance and drape.

Unit 3
Determination of color fastness to crocking, washing, perspiration and light.

Unit 4
Determination of fabric shrinkage.

## IV Semester <br> B.Sc. (Fashion and Apparel Design)

## APPAREL PRODUCTION

## Objectives:

- To introduce various departments of an apparel industry
- To impart skills in apparel production in an industrial set-up


## Unit 1 <br> 4 hrs.

Introduction to apparel production, terminologies - plant layout, process flow, planning, scheduling, WIP, structure of apparel industry.

## Unit 2

10 hrs .
Sourcing - Introduction to fabric and accessory sourcing, its types. Storage of raw material, BOM (Bill of material), Sampling department - objectives, importance of sampling department, types of sample - prototype, fit sample, pp sample, size set, production sample, shipment sample. Introduction to spec-sheet and its importance, understanding and making samples as per tech pack.

## Unit 3

8 hrs.
Production department - Selection of production system- progressive bundle system, unit production system, modular manufacturing, piece work, CMT. Production planning, linear manufacturing process.

## Unit 4

8 hrs.
Cutting department - Machineries, fabric spreading, pattern laying, marker preparation, sorting, numbering \&bundling, fusing department- methods of fusing, fusing machines. Finishing \& pressing department, trimming department, packing department, apparel accessories \& components - fasteners, labels, support materials, decorative trims, tapes \& packing materials.

## Unit 5

8 hrs.
Industrial engineering concepts - Time study, motion study, work study, standard allowable minutes (SAM) - definition and method of calculation, productivity, efficiency, sequence of operations.

## Unit 6

Introduction to export documentation - Terminologies, principle documents, auxiliary documents, risk cover, insurance, ECGC, quality control and pre-shipment inspection, export credit, short, medium, long term credit, packing credit, negotiation of bills, payment procedures in export trade.

## References:

1. Dorothy Fairclough, et al., "Cooklin's Garment Technology for Fashion Designers", Wiley India Pvt. Ltd., $2^{\text {nd }}$ edition, 2012.
2. Harold Carr \& Barbara Latham, "The Technology of Clothing Manufacture", Oxford Publication, USA, 1994.
3. Myoungok Kim \& Injoo Kim, "Pattern Cutting for Men's Wear", Fairchild Books, London, 2014.
4. Paula J, Myres \& Mcdevitt, "Apparel Production Management and the Technical Package", Fair Child Publications, London, 2010.
5. Rajesh Bheda, "Managing Productivity in the Apparel Industry", CBS Publication, New Delhi, 2003.
6. Ruth E Glock \& Grace I Kunz, "Apparel Manufacturing Sewn Product Analysis", Blooms Burry Publication, UK, 2005.

## IV Semester <br> B.Sc. (Fashion \& Apparel Design) <br> APPAREL PRODUCTION

Practicals
FAD 405 B
16 practicals of 3 hr seach

Exam Hours: 03
Exam Marks: 35
16 practicals of 3 hr seach
Internal Assessment: 15

Unit 1
Folio on all accessories \& components used in apparel industry.

Unit 2
Designing \& construction of men's formal shirt using standard block including development of flat sketches, technical drawing, spec-sheet, component drawing, consumption \& calculation of fabric, trims and supporting materials, costing of the product. Drawing Sequence of operations, machinery \& manpower calculations.

Unit 3
Designing \& construction of men's jacket using standard block including development of flat sketches, technical drawing, spec-sheet, component drawing, consumption \& calculation of fabric, trims and supporting materials, costing of the product. Drawing sequence of operations, machinery \& manpower calculations.

## Unit 4

Designing \& construction of men's trouser using standard block including development of flat sketches, technical drawing, spec-sheet, component drawing, consumption \& calculation of fabric, trims and supporting materials, costing of the product. Drawing sequence of operations, machinery \& manpower calculations.

## V Semester <br> B.Sc. (Fashion \& Apparel Design) FASHION RETAIL, MARKETING AND MERCHANDISING

FAD 501 A
Total Hours: 64

Exam Hours: 03
Exam Marks: 100
Internal Assessment: 50

## Objectives:

- To acquaint students with various marketing and merchandising procedures
- To introduce students to fashion retailing \& branding strategies

Unit 1
12 hrs.
Fashion retailing - Introduction to retail, marketing, management and merchandising, terminologies history, scope, importance, types of retailing - store based and non-store based, channel of distribution.

## Unit 2

10 hrs .
Marketing - Types, four P's, fashion promotion - types, trade shows, market weeks, exhibitions, fashion shows, market survey and research.

## Unit 3

12 hrs .
Types of merchandising, concepts, merchandise planning, sampling - Importance, counter samples, inventory management in retailing, costing and pricing of material. Retail merchandiser, concept, quick response, Just-in-Time, merchandiser calendar, trend analysis, forecast analysis, concepts of apparel product line, planning, directing, coordinating and controlling.

## Unit 4

8 hrs.
Brand - Introduction, definition, types, strategies, steps in brands \& image building, brand expansion.

Unit 5
12 hrs.
Fashion brand licensing - Introduction, types of licensed names, images and design types like celebrity name licensing, designer name licensing, exclusive licensing for retailers, character and entertainment licensing, corporate licensing, event and festival licensing, art licensing. Development of licensed products - licensing contract- time limit, royalty payment, image, marketing and distribution, quality, advances, guarantees, notification of agreements to custom departments. Advantages and disadvantages of licensing.

## Unit 6

10 hrs .
Introduction to customer relationship management, measuring customer relationship management, customer response, satisfaction, loyalty, customer relation and complaint management.

## References:

1. Elaine Stone, "The Dynamics of Fashion", Fair Child Publication, United Kingdom, 1999.
2. Leslie Davis Burn and Kathy Mullet, "The Business of Fashion", Bloomsbury Publishing, $5^{\text {th }}$ edition, London, 2016.
3. Michele M Granger, "Fashion Entrepreneurship", Bloomsbury Academic, $3^{\text {rd }}$ edition, USA, 2019.
4. Philip Kotler, "Marketing Management", Dorling Kindersley Publishing, $12^{\text {th }}$ edition, United Kingdom, 2007.
5. Philip Kotler, "Principles of Marketing", Pearson, $12^{\text {th }}$ edition, 2007.
6. Susan Dillon, "The Fundamentals of Fashion Management", AVA Publishing, New Delhi, 2011.

# V Semester <br> B.Sc. (Fashion and apparel Design) <br> COMPUTER AIDED APPAREL DESIGN 

FAD 502 A Total Hours: 48

Exam Hours: 03
Exam Marks: 70

## Objectives

- To understand the fundamentals and principles of CAD
- To provide students with the knowledge of CAD and their applications.

Unit 1
12 hrs .
CAD-Definition, introduction, fundamentals, functions, features, application, advantage \& disadvantage, benefits of using CAD software, general design process categories men's, women's, children measurements relate to fit. Textile design systems (Knitted fabrics, printed fabrics, yarn-dyed fabric), illustration/sketchpad systems (Texture mapping: $21 / 2$ and 3D draping software), embroidery systems, specification and costing systems, digitizing systems, grading systems, marker making systems (plotting, cutting operations), PDS - Pattern Design Software, Body measurement software.

## Unit 2

8 hrs.
Introduction to pattern making software, its uses and application in different National and International garment industries. Virtual fit-room - Introduction, benefits of VFR in apparel industry, sampling (virtual product), 3D scanning, software and its application.

## Unit 3

8 hrs.
CAD/ CAM applications in fashion - Garment designing, weaving, knitting and embroidery and textile dyeing and printing and garment manufacturing.

## Unit 4

10 hrs .
CIM - Introduction, its types - traditional and computer integrated production management systems, MRP (Material Requirement Planning), CRP (Capacity Requirement Planning), material handling systems, human labour in the manufacturing systems and its benefits. PDM (Product Data Management system).

## Unit 5

4 hrs.
CAQ (Computer Aided Quality Control) - Introduction, terminologies, inspection methods - contact and non-contact inspection methods with examples and its uses, machinery probes.

## Unit 6

6 hrs.
E-Portfolio presentation- Definition, introduction, presentation \& graphics, types of boards (inspiration, theme, mood, color, fabric swatch, texture, and client).

## References:

1. Donald D Voisinet, "Computer Aided Drafting and Design- Concept and Application", McGraw-Hill Inc., US, 1986.
2. Jinlian Hu, "Computer Technology for Textiles and Apparel", Woodhead Publishing, $1^{\text {st }}$ edition, 2011.
3. Mikell P Groover \& Mory W Zimmers, "CAD/CAM Computer Aided Design \& Manufacturing", Pearson Education Publications, New York, 2000.
4. Renee Weiss Chase, "CAD for Fashion Design", Upper Saddle River, Prentice Hall, New Jersey, 1997.
5. Taylor P, "Computer in Fashion Industry", Heinemann Publication, United Kingdom, 1990.
6. Winfred Aldrich, "CAD in Clothing \& Textiles", Blackwell Science, New Delhi, 1994.

## V Semester <br> B.Sc. (Fashion \& Apparel Design) COMPUTER AIDED APPAREL DESIGN

Practicals
FAD 502 B
16 practicals of 3 hrs each

Exam Hours: 03
FAD 502 B
Exam Marks: 35
16 practicals of 3hrs each
Internal Assessment: 15

## Unit 1

Developing croqui figures for men, women and children.
Draping of garments on men's, women's \& children (casual, party, night, sports, office/formal) wears using Photoshop/ Corel Draw software.

Unit 2
3
Design garment with flat sketches along with stitch specification for the following:
Children - Girls (A-line \& yoke frock), Boys (shirt \& shorts)
Adults - Women's (Top, Skirt, gown), Men's (Shirt, Kurtha, Trouser).
For the above create spec sheets, cost sheets for each garment using Photoshop / Corel Draw software.

## Unit 3

Prepare patterns - A-Line frock, skirt, shirt, dress / top, shorts and trousers. Grade and prepare marker for the above patterns.

## Unit 4

Illustrate and render fashion models - apply gradient \& 3D effects.
Design logo, advertising brochures for fashion brands. Develop tags \& labels -Brand label, size label, wash care label, content label using Corel Draw software.

# V Semester <br> <br> B.Sc. (Fashion \& Apparel Design) <br> <br> B.Sc. (Fashion \& Apparel Design) <br> FASHION ACCESSORIES 

FAD 503 A
Exam Hours: 03
Total Hours: 48
Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To impart knowledge of fashion accessories
- To ensure a detailed understanding of design methodology, materials, production processes and market dynamics of fashion accessories


## Unit 1

6 hrs.
Fashion accessories - Introduction, definition, history, classification.

## Unit 2 <br> 8 hrs.

Accessory types - Head gears, foot wear, bows, ties and belts, hand bags, gloves, scarves, stoles, shawls, watches, umbrella, parasols.

## Unit 3

8 hrs.
Materials and manufacturing processes - design development \& production of footwear, bag, tie, gloves, belt. Process and production of leather, fur \& wood for accessory making.

## Unit 4

8 hrs.
Trends and Marketing- Fashion trends and marketing of accessories. Study of any 2 accessory designers. (One Indian and International each)

## Unit 5

12 hrs .
Jewellery - Jewellery design and production, types of jewellery, precious, costume, bridge, traditional Indian jewellery - Temple, Kundan, Thewa, Meenakari.

## Unit 6

6 hrs.
Gemology - Introduction to gems, basic qualities and healing properties of gems.

## References:

1. Claire Wilcox, "Century of Bags", Chart well Books, New Jersey, 1997.
2. Colin McDowel1, "Shoes - Fashion and Fantasies", Thames and Hudson, London, $1^{\text {st }}$ edition, 1994.
3. Jamila BrijBhusan, "Master Piece of Indian Jewellery", D.B. Taraporevala Sons \& Co. Private Ltd., $1^{\text {st }}$ edition, Bombay, 1979.
4. Jinks McGrath, "Basic Jewellery Making Techniques", Krause Publications, New Delhi, 2003.
5. John Peacock, "Fashion Accessories - Men", Thames and Hudson, London, 1996.
6. John Peacock, "The Complete 20th Century Source Book", Thames and Hudson, London, 2000.

## V Semester <br> B.Sc. (Fashion \& Apparel Design) <br> FASHION ACCESSORIES

Practicals<br>FAD 503 B<br>16 practicals of 3 hr seach

Unit 1 4

Sketching, rendering of head gear, hand wear, foot wear, hand bags, belt \& gloves (3 each). Construction of any one.

Unit 2
Accessory designing based on theme (only sketching on croqui) 2 each men / women / child.

Unit 3
Sketching of Indian jewellery - Temple, Kundan, Thewa, Meenakari.

Unit 4
Jewellery designing based on (With concept board) inspiration. Making of boards \& jewellery.

# V Semester <br> B.Sc. (Fashion and Apparel Design) <br> DRAPING 

FAD 504 A
Total Hours: 48

Exam Hours: 03
Exam Marks: 70
Internal Assessment: 30

## Objectives

- To introduce the basic draping techniques
- To familiarize students with draping methods for different kinds of garments


## Unit 1

6 hrs.
Introduction to draping, history of draping, definition, draping terminology-apex, balance, plumbline, trueing, blocking, blending, princessline, clipping, marking. Tools and equipment used in draping.

## Unit 2

6 hrs.
Dress form - Introduction, manufacturing technique, types of dress forms, specialty dress form, production sizes and preparation of dress form for draping.

Unit 3 hrs.
Draping principles and skills - selecting fabric, elements of fabric, draping preparation, seam allowances, notching guidelines.

## Unit 4

10 hrs.
Draping techniques - Basic draping techniques - basic bodice, basic skirt.
Dresses - Bias, princessline, panels, flared skirt, circular skirt, and asymmetric skirt, bustier, pants. Component draping - Sleeves - Basic sleeves, set-insleeves, sleeves along with bodice. Collar - Mandarin, peterpan, shawl collar. Cowl - Neckline cowl, waistline cowl, sleeve cap cowl. Yokes - Shoulder, midriff, hipline.

## Unit 5

10 hrs .
Dart manipulation techniques - Conversion of darts to tucks, pleats, gathers and seamlines, radiating and graduating darts, evaluate finished drape, custom draping.

## Unit 6

6 hrs.
Couture draping - Introduction, history, definition, draping concepts, Haute designers, 3D draping, origami draping.

## References:

1. Bina Abling, and Maggio, Kathleen, "Integrating Draping, Drafting and Drawing", Fairchild Books Inc., 2009.
2. Connie Amaden Crawford, "The Art of Fashion and Design", Fairchild Publications, 2018.
3. Helen Joseph-Armstrong, "Draping for Fashion Design", Bloomsbury Publishing India Private Limited, $3^{\text {rd }}$ revised edition, 2013.
4. Karolyn Kiisel, "Draping - The complete course ", Thames \& Hudson, 2013.
5. Kenneth D King, "Cool Couture", Creative Publishing International, 2008.
6. Sally Di Marco, "Draping Basics", Fairchild Publications, $1^{\text {st }}$ edition, 2009.

## V Semester <br> B.Sc. (Fashion and apparel Design) <br> DRAPING

Practicals
FAD 504 B
Exam Hours: 03
16 practicals of 3 hr seach
Exam Marks: 35
Internal Assessment: 15

## Unit 1

Sketching of tools and equipment used in draping.

Unit 2
Basic draping methods - Bodice front and back, skirt front and back.
Dart manipulation - Conversion of darts to tucks, pleats, gathers and seamlines, radiating and graduating darts.

## Unit 3

Component draping - Sleeves - Set-in sleeves, sleeves along with bodice. Collars Mandarin, Peter pan and shawl collar. Cowls - Neckline cowl. Yokes - Shoulder, midriff and hipline. Fullness - Darts, pleats, tucks, gathers and ruffles.

Unit 4
Draping and construction of dresses - Straight shift, sheathdress, princess dress, designer blouse.

# V Semester <br> B.Sc. (Fashion and Apparel Design) <br> NEEDLE CRAFT 

FAD 505 A
Total Hours: 48

Exam Hours: 03
Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To impart knowledge on surface embellishment and basic embroidery stitches
- To gain practical knowledge \& skills on different traditional \& tribal embroideries of India


## Unit 1

3 hrs.
Introduction to needle craft, tools and materials used in needle craft. Basic stitching techniques- preparing the fabric, threading a needle, stitch methods, tips, beginning and ending embroidery stitches.

Unit 2
10 hrs
Embroidery - Definition, classification, methods \& implementation of basic embroidery stitches - straight stitches - running, stem, back, and couching, loop stitches - chain, open chain, feather, fly and blanket, flat stitches- satin, herring bone, cross, fish bone and Romanian couching, knotted stitches- French and bullion, weaving stitches - spider's web, woven wheel and kamal kadai.

Unit 3
6 hrs.
Crochet - Introduction, definition, tools, material, techniques, types of single crochet, double crochet, treble pattern.

## Unit 4

12 hrs.
Knitting - Definition, terminologies, tools \& materials used for knitting, techniques employed in knitting, features \& applications of elementary stitches (garter, stocking, rib, and moss), texture, rib, diagonal, lace pattern, cable pattern, cross and knotted.

## Unit 5

12 hrs.
Special techniques-Introduction, methods, types and application patch work, appliqué, quilting, braiding, hooking, smocking, macramé knotting, bead, sequins and tatting.

## Unit 6

5 hrs
Bead work, aari work, zardosi, cutwork - Origin \& history. Materials used, techniques \& application.

## References:

1. Anne Mathew, "Vogue Dictionary of Crochet Stitches", David \& Charles UK, London, 1989.
2. Cecily Keim \& Kim P. Werker "Teach Yourself Visually Crocheting", Wiley Publication, New Zealand, 2004.
3. Gail L, "Inspirational Ideas for Embroidery on Clothes and Accessories", Search Press, 1993.
4. Jennifer Campbell \& Anne-Marie Bakewell, "Complete Guide to Embroidery Stitches", Reader's Digest Association, London, 2006.
5. Readers Digest, "Complete Guide to Needle Work", APH Publication, New Delhi, 1996.
6. Taylor, Terry, "The New Crochet", DK Publishing, $1^{\text {st }}$ edition, New York, 2015.

## V Semester <br> B.Sc. (Fashion and Apparel Design) <br> NEEDLE CRAFT

Practicals
FAD 505 B
16 practicals of 3 hrs each

Exam Hours: 03
Exam Marks: 35
Internal Assessment: 15

## Unit 1

Needle craft - Introduction, sketch the tools and equipment used in needle craft. Make a collage of motifs, different fabrics swatch, threads, beads and sequence used for embroidery samples.

## Unit 2

Development of embroidery samples - Basic embroidery stitch- Straight stitchesRunning stem, back, and couching, loop stitches - chain, open chain, feather, fly and blanket, flat stitches- satin, herring bone, cross, fish bone and Romanian couching, knotted stitches- French and bullion, weaving stitches-spider's web, woven wheel and kamal kadai.

## Unit 3

Development of crochet sample - Single, double and treble.
Development of knitting sample - Basic - purl, knit, stocking and rib.
*sample size 4"X4"

## Unit 4

Special techniques - Appliqué, quilting, patch work, smocking, macramé - any two, braiding, bead work, sequence work, ribbon work.

# V Semester <br> B.Sc. (Fashion and Apparel Design) INTERNSHIP/CRAFT DOCUMENTATION 

Exam Marks: 100
Internal Assessment: 50

## Objectives:

- To gain practical knowledge in various departments and processes in garment /textile craft manufacturing.

Internship is to be carried out in a garment factory / textile processing unit / textile craft cluster for a minimum period of 30 days. The student must submit a detailed Internship report / craft documentation report furnishing all the details along with the work he/she has carried out during the period.

The internship/craft documentation report should include

## Internship

- Aim \& objective
- Organizational structure
- Process flow chart / sequence of operation
- Product specifications \& tech pack
- Design features
- Quality systems
- Summary


## Craft Documentation

- History of cluster
- Products of cluster
- Size of cluster
- Design features \& diversification
- Product range
- Supply chain \& promotional technique
- Summary

Note: Internship in boutique will be not considered.

# VI Semester <br> B.Sc. (Fashion \& Apparel Design) <br> FASHION BUSINESS MANAGEMENT 

FAD 601 A Total Hours: 64

Exam Hours: 03
Exam Marks: 100
Internal Assessment: 50

## Objectives

- To impart knowledge on the techniques of managing fashion business
- To equip students with entrepreneurial skills


## Unit 1

6 hrs.
Introduction to fashion business, scope of fashion business, business growth and expansion. Introduction to fashion industry, its structure and dynamics.

## Unit 2

10 hrs .
Global fashion supply/value chain - Introduction, marketing channels - Direct marketing, limited marketing, extended marketing. Marketing channel integration - Conventional marketing channels vertical marketing channels, dual distribution channels, multichannel distributions, omni channel distribution. Marketing channel flows - Physical flow, ownership flow, information flow, payment flow, promotion flow.

## Unit 3

10 hrs.
Fashion brand strategies - Introduction, brand identity, brand positioning, and brand image. Fashion brand classification - International designer/luxury brand, National designer/luxury brands, private label brands, department stores private label brands, exclusive licensing brands, SPA retail brands, lifestyle brand.

## Unit 4

10 hrs.
Fashion communication - Introduction, types - verbal, nonverbal, importance of PR, advertising, styling, creative riting, photography, fashion journalism, kinesics, proxemics.

## Unit 5

10 hrs .
Business and legal framework of fashion business - Forms of ownership, business organization and company ownership, sole proprietorships - advantage and disadvantage, partnership - limited partnerships - advantages and disadvantages. Corporations - types -C-corporations, S-corporations, B-corporations - advantages and disadvantages, limited liability companies - advantages and disadvantages.

Unit 6
12 hrs .
Entrepreneurship and new venture - Introduction, essentials for successful venture, formalities of opening a firm, financial support from government and other private banks

- term loan, working capital, project financing. Certification and registration of firm, GST regulations, PAN, government policies and procedures followed to setup.


## Unit 7

6 hrs.
Boutique management - Introduction, location, space planning, workstation, display (window display, product display) lighting, ambience, presentation, visual communication, inventory control, logistic, e-commerce sales.

## References:

1. Kitty G Dickerson, "Inside the Fashion Business", Pearson Education, $7^{\text {th }}$ edition, New Delhi, 2016.
2. Leslie Davis Burn \& Kathy Mullet, "The Business of Fashion", Bloomsbury Publishing, $5^{\text {th }}$ edition, USA, 2016.
3. Michele M Granger, "Fashion Entrepreneurship", Bloomsbury Academic, $3^{\text {rd }}$ edition, USA, 2019.
4. Philip Kotler, "Marketing Management", Dorling Kindersley Publishing, $12^{\text {th }}$ edition, United Kingdom, 2007.
5. Philip Kotler, "Principle of Marketing", Oxford Book, $8^{\text {th }}$ edition, Jaipur, India, 2007.
6. Susan Dillon, "The Fundamentals of Fashion Management", Bloomsbury Visual Arts, New York, 2011.

# VI Semester <br> B.Sc. (Fashion \& Apparel Design) <br> FASHION EVENT MANAGEMENT 

FAD 602 A
Total Hours: 64

Exam Hours: 03
Exam Marks: 100
Internal Assessment: 50

## Objectives:

- To provide an understanding of the different types of fashion events
- To impart knowledge on various inter-personal relations


## Unit 1

12 hrs.
Introduction to event management - Types and category, sports, rallies, wedding and corporate events, principles of event management, key roles, types - fashion show, fairs \& tradeshow, product launch, role of an event coordinator - administration, design, marketing, operations.

Unit 2
12 hrs .
Initial planning requirements, creating themes for the event, targeting the audience / vendors, timing the event and finding avenue, guest lists and invitations, organizing the required production team and preparing duty charts, budget estimation, seeking sponsorships - writing sponsorship letters.

## Unit 3

8 hrs .
Venue requirements, stage / booth design, seating patterns and plan, lighting and allied audio-visual effects, preparation of programme booklet, catering arrangements, progress monitoring through checklists.

## Unit 4

12 hrs.
Executing a fashion show, catwalk presentation requirements, merchandise selection, models selection, music and choreography, final show sequence and rehearsals fitting sessions, dressing area arrangements, commentary requirements, closing and striking the show.

Unit 5
12 hrs.
Marketing \& managing fashion events, pre-show marketing and post show follow up, creating a pre and post-event promotion plan, building media relations, preparing press release and media kit, post-show evaluation.

Unit 6
8 hrs.
Ensuring legal compliance, safety \& security, licenses and permissions to be obtained, risk management for prevention of hazards, security for people and merchandise.

## References:

1. Alexandre de Betak, et al., "Betak - Fashion Show Revolution", Phaidon Press, 2017.
2. Dennis Nothdruft, Marylou Luther, \& Zandra Rhodes, " 50 Fabulous Years in Fashion" Yale University Press, New Haven, 2019.
3. Federico Poletti \& Giorgia Cantarini, "The Fashion Set: the Art of the Fashion Show", Dublin Roads Publishing, 2016.
4. Judith C Everett, Kristen K Swanson, et al., "Guide to Producing a Fashion Show", Fairchild Books, $4^{\text {th }}$ edition, New York, 2018.
5. Paula Taylor, "How to Produce a Fashion Show from A to Z", Pearson Prentice Hall, Boston, 2013.
6. Julia Rutherford Silvers, "Professional Event Co-ordination", Wiley, $2^{\text {nd }}$ edition, United Kingdom, 2012.

# VI Semester <br> B.Sc. (Fashion and Apparel Design) <br> GARMENT SURFACE ORNAMENTATION 

FAD 603 A
Exam Hours: 03
Total Hours: 48

Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To impart knowledge on various traditional embroideries of India
- To gain practical knowledge on different embroideries of India


## Unit 1

4 hrs.
Introduction to traditional embroideries. Classification of Indian embroidery - Different regional styles, different branches of Indian embroidery.

## Unit 2

8 hrs.
Traditional Northern India embroidery - Origin, history, types, material, motif, colour and stitches - Kashida of Kashmir, Phulkari of Punjab, Chamba rumal of Himachal Pradesh, Nagaland and Manipuri (North eastern) embroidery.

## Unit 3

8 hrs .
Traditional western India embroidery- History, types, material,motif,colour and stitchesembroidery from Gujarat (Kutch,Sindh and Kathiawar) and Parsi embroidery.

## Unit 4

8 hrs.
Traditional central India embroidery- History, types, material, motif, colour and stitches Chikankari of Uttar Pradesh, Phool Patti ka Kaam of Uttar Pradesh and Zardozi of Uttar Pradesh.

## Unit 5

12 hrs .
Traditional Southern India embroidery- History, types, material, motif, colour and stitches - Kasuti from Karnataka, Lambadi embroidery of Andhra Pradesh and Thoda from Nilgiri Mountains of Tamil Nadu.

## Unit 6

8 hrs.
Traditional Eastern India embroidery- History, types, material, motif, colour and stitchesKantha from West Bengal, Sujani from Bihar and Pipli appliqué from Orissa.

## References:

1. Charllotte Kwon \& Tim McLaughlin, "Textiles of the Banjara: Cloth and Culture of a Wandering Tribe", Thames \& Hudson, London, 2016.
2. Jasleen Dhamija, "Asian Embroidery", Abhinav Publications, New Delhi, 2004.
3. Satheesan, Innova, "Indian Ethnic Designs", Honesty Publishers and Distributors, Mumbai, 2009.
4. Shailaja D Naik, "Traditional Embroideries of India", A.P.H. Publishing Corporation, New Delhi, 2020.
5. Usha Srikant, "Designs for a Lifetime", Honesty Publishers and Distributors, Mumbai, 2009.
6. Usha Srikant, "Ethnic Embroideries of India", Bloomsbury Publishing, New York, 2016.

## VI Semester <br> B.Sc (Fashion \& Apparel Design) GARMENT SURFACE ORNAMENTATION

| Practicals | Exam Hours: 03 |
| :--- | ---: |
| FAD 603 B | Exam Marks: 35 |
| 16 practicals of 3hr seach | Internal Assessment: 15 |

Unit 1
Traditional Indian embroideries of different region, understanding different traditional motifs, fabric, threads and colors used. Collage of motifs for all traditional embroidery.

Unit 2
Traditional Northern India embroidery - Kashida of Kashmir, Phulkari of Punjab, Chambarumal from Himachal Pradesh, Nagaland, Manipuri (North eastern) embroidery. Traditional western India embroidery - embroidery from Gujarat (Kutch, Sindh and Kathiawar).

Unit 3 5
Traditional Central India embroidery - Chikankari of Uttar Pradesh and Zardozi of Uttar Pradesh. Traditional Southern India embroidery - Kasuti of Karnataka, Lambadi embroidery of Andhra Pradesh and Thoda from Nilgiri Mountains of Tamil Nadu.

Unit 4
Traditional Eastern India embroidery - Kantha embroidery of West Bengal.

# VI Semester <br> B.Sc. (Fashion and Apparel Design) <br> APPAREL QUALITY MANAGEMENT 

FAD 604 A Total Hours: 48

Exams Hours: 03
Exam Marks: 70
Internal Assessment: 30

## Objectives:

- To acquaint students with the Apparel Total Quality Management practices
- To provide a comprehensive knowledge about judging the quality of readymade garments


## Unit 1

6 hrs.
Definition of quality, dimensions of quality, importance of quality. Quality control, quality assurance.

## Unit 2

8 hrs.
Apparel quality planning process, pre-production meetings, and preparation of quality technical style files.

## Unit 3

8 hrs.
Importance of quality control in garment industry, fabric inspection, identification of woven and processing defects, (fabric, cutting, sewing \& washing defects), 4 point \& 10 point system, IPQC, AQL standards.

Unit 4
10 hrs.
Introduction to statistics, mean, mode, median, tools of TQM - Histograms, Pareto charts, pie charts, control charts, Statistical Process Control (SPC). Quality costs \& analysis - internal costs and external costs.

## Unit 5

6 hrs.
Care labels - International care labeling system, Japan, Canada, British care labeling system, Eco labels.

## Unit 6

10 hrs.
Quality system - Need for ISO 9000, Major elements in ISO 9001-2015, internal auditing, Environmental Management System, ISO 14000 series standards, Environmental Management Programme, and other quality management standards of apparel industry, introduction to AATCC, ASTM, BIS standards, significance \& importance.

## References:

1. Chutler A J, "Introduction to Clothing Production Management", BSP Professional Books, Oxford, 1988.
2. Gerry Cooklin, "Introduction to Clothing Manufacture", Blackwell Scientific, Oxford, 2006.
3. Grace I Kunz \& Ruth E Glock, "Apparel Manufacturing \& Sewn Product Analysis", Pearson, $4^{\text {th }}$ edition, 2004.
4. Harold Carr \& Barbara Latham, "The Technology of Clothing Manufacture", Blackwell Scientific Publications, Oxford 1994.
5. Pradip V Mehta, "Quality Control in Apparel Industry", American Society for Quality Control, Quality Press, New York, 1992.
6. Richard S Johnson, Lawrence E Kazense, "ASQC Total Quality Management Series", ASCQ Quality Press, Milwaukee, 1993.

# VI Semester <br> B.Sc. (Fashion \& Apparel Design) <br> APPAREL QUALITY MANAGEMENT 

## Practicals

FAD 604 B
Exam Hours: 03

16 practicals of 3 hrs

## Exam Marks: 35

Internal Assessment: 15

## Unit 1

Fabric, inspection (4 points systems), fabric shading.

Unit 2
Designing and inspection of apparel care labels, contents, dimensions and positioning of the labels.

## Unit 3

Final inspection of garments. Checking points and methods of checking of men's Shirt, trouser, ladies top, trouser and kids garment. Usage of Histograms, Control charts, Pie charts.

## Unit 4

Preparation of specification sheets for men's, women's and kids wear.
Note: The final inspection checking points as listed below for men's shirt, similarly the check list to be prepared for women wear and kids wear for practicing by the students. Shirt inspection check list:

| LOCATION | INSPECTION FOR |
| :---: | :---: |
| Collar | Both points are same or not, stripe or checks is matched accurately, stitch, <br> collar flat or not, interlining, bubble presence, collar stick placement. |
| Size | Size label is in correct place, and every part size is correct or not. Size as per <br> the measurement chart, allowances etc. |
| Button \& Button hole | Placed in right place or not, evenness of the gap between the buttons, Button <br> stitches, finishing, matching, \& to make sure button is not broken. Placement <br> of spare button as per specification. |
| Pocket | Pocket upper edge is horizontal or not, pocket position, size, stitch, stripe or |
| check match, flat or not. |  |$|$| Stitch, puckering, edge free from stitch. |  |
| :---: | :---: |
| Hem | Stitch, puckering, DNLS, matching of stripe or checks. |
| Yoke \& shoulder | Pattern matching, stitch, free from raw edge, puckering, straight stitch, |
| Cuffs | Stripes or checks matching, top stitch, flat or not., size of the cuff |
| Finished appearance | Trimming of edges and threads, oil marks, dirt, finger marks broken needle, <br> stitch missing, fabric fault, color matching, balancing of different <br> components. |
| Buyers specifications | If the Buyer or the importer has given a separate checklist for the inspection, <br> the inspection to be carried out to verify the sample from the bulk selected is <br> matching to the requirement or not. |

# VI Semester <br> <br> B.Sc. (Fashion and Apparel Design) <br> <br> B.Sc. (Fashion and Apparel Design) <br> VISUAL MERCHANDSING 

FAD 605 A
Exam Hours: 03
Exam Marks: 70
Internal Assessment: 30

## Objectives

- To impart the knowledge of concepts in visual merchandising
- To enable students to understand the range of activities that covers theoretical and practical components of fashion visual merchandising


## Unit 1

6 hrs.
Introduction to visual merchandising, scope, history \& importance. Terminologies in VM.

## Unit 2

8 hrs.
Elements of VM, inspiration, presentation, and implementation. Design elements Colour, texture, line \& composition, lighting, design process. Design principles Balance, emphasis, proportion, rhythm, repetition.

## Unit 3

6 hrs.
Retail store management - Location design, layout - importance, types, space management, and environment - interior \& exterior, lighting, ambience, ventilation, signage, marquees, banners.

Unit 4
10 hrs .
Display systems - Window display - types of windows, construction of window displays, techniques. Product display - Purpose, types, formats, cross mixing, points of purchase displays, new product introduction, offers, seasonal displays, home fashions, hard goods, food and other product displays, fashion accessory display, masking \& proscenia.

## Unit 5

10 hrs .
Fixtures \&mannequins - Fixtures - Introduction, types of storages systems product wise, materials selection. Mannequins - Types - Headless, abstract, semi realistic, realistic, inflatables, 3D dressing. Props- Types, selection, material used, application.

## Unit 6

8 hrs .
VM planning - Planning process, strategies, store planning, inventory management, buying, sourcing \& costing.

## References:

1. Castelino M, "Fashion Kaleidoscope", Rupa \& Co, Calcutta, 1994.
2. Judith Bell \& Kate Ternus, "Silent Selling: Best Practice \& Effective Strategies in Visual Merchandising", Bloomsbury, $5^{\text {th }}$ edition, New York, 2017.
3. Luura L Bliss, "Study Guide Visual Merchandising and Display", Fairchild Books, $11^{\text {th }}$ edition, New York, 2018.
4. Saran Bailey \& Jonathan Baker, "Visual Merchandising for Fashion: Basic fashion Management", Bloomsburry Publication, New Delhi.
5. Swathi Bhalla, Anuraag S, "Visual Merchandising", Tata McGraw Hill Publishers, Cincinnati, Ohio, 2010.
6. Tony Morgan, "Visual Merchandising", Laurence King Publishing, $3^{\text {rd }}$ edition, California, 2016.

## VI Semester <br> B.Sc. (Fashion and Apparel Design) <br> VISUAL MERCHANDSING

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Practical
FAD 605 B
16 Practical of 3 hrs each
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Exam Hours: 03

## Internal Assessment: 15

## Unit 1

4
Designing \& sketching of store layout - Grid layout, loop layout, freeform layout, racetrack layout, spine layout.

Unit 2
Creation of 3 D Models - Display systems of women's garments \& accessories.
Creation of 3 D Models - Display systems of men's garments \& accessories.
Creation of 3 D Models - Display systems of kid's garments \& accessories.
(Students should create miniature model of thematic window display according to mentioned category)
Dimension of display - $30 \times 30 \times 15$ ( 30 " width, 30 " length, 15 " breadth)

## Unit 3

2
Designing of signage, marquees and banners -Signage - outdoor, informational, persuasive, mats. Collection of pictures and store visits.

Unit 4
Props - Lights, table and surface, figures, signs and lettering. Windows - Open window, closed window, island window, and corner, elevated and shadow box.
Store visit \& collection images.

# VI Semester <br> B.Sc. (Fashion and Apparel Design) FASHION PORTFOLIO \& DESIGN COLLECTION <br> FAD 606 A <br> Total Hours: 48 <br> Exam Hours: 03 <br> Exam Marks: 70 <br> Internal Assessment: 30 

## Objectives:

- To facilitate students understand the significance of portfolios and presentations
- To impart practical skills for portfolio presentations


## Unit 1

Portfolio - Definition, types and importance, contents of portfolio, portfolio presentation skills and material management.

## Unit 2

6 hrs.
Fashion forecasting and color forecasting, use of online service for forecasting, choosing forecast, mood board, client board and color board, swatch board, illustrations and flat sketches production of spec-sheet and costing, development of logo, hang tags, concept board.

## Unit 3

8 hrs.
Clothing categories, styling, price and size ranges for men's wear, styling, price and size ranges for women and styling, price and size ranges for kid's wear.

## Unit 4

8 hrs.
Technical details, working drawings, development of spec-sheet, flat sketch and costing.

## Unit 5

10 hrs .
Fashion photography - Knowledge of different lighting - Indoor and outdoor, aperture, speed and locations used in fashion photography. Study the work of well-known fashion photographers.

## Unit 6

10 hrs .
Fashion dressing - Makeup - Indoor, outdoor, hairstyle, self-grooming - introduction, importance and application.

## References:

1. Gini Stephens Frings, "Fashion from Concept to Consumer", Pearson, 9 edition, 2007.
2. Kenneth King, "Cool Couture", Quarry Books, 2008.
3. Kitty G Dickerson, "Inside the Fashion Business", Pearson Education, New Delhi, 2005.
4. Marian H Jernigan \& Cynthia R Easterling, "Fashion Merchandising and Marketing", Macmillan, New York, 1990.
5. Mary Frances Drake, Janice Harrison Spoone \& Herbert Greenwald, "Retail Fashion Promotion and Advertising", Pearson, $1^{\text {st }}$ edition, 1991.
6. Polly Guerin, "Creative Fashion Presentations", Fairchild Publications, New York, 2005.

## VI Semester <br> B.Sc. (Fashion and apparel Design) FASHION PORTFOLIO \& DESIGN COLLECTION <br> Exam Hours: 03 <br> Exam Marks: 35 <br> Internal Assessment 15

Practical
FAD 606 B
16 practical of 3 hrs each

Unit 1
An individual portfolio presentation based on a theme.
a. It should have min 2 collections of 5 ensembles each (4 wearable, 1 non wearable)
b. Portfolio should include development of story board, mood board, color board, texture board, swatch board, logo, working drawing - costing, spec-sheet, development of garments by drafting, draping and flat pattern.
c. Produce one collection from the portfolio and to be presented as fashion show.

## Unit 2

Preparation of concept boards for four seasons of three ensembles each.

