

B.Sc.- FASHION AND APPAREL DESIGN (CBCS)

SEMESTER I

CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
FAD103 A FAD 103 B	Fibre & Yarn Science	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD102 A FAD102 B	Elements of Fashion & Design	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD103 A FAD103 B	Pattern Making & Garment Construction- I	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
	Constitution of India and Human Rights	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				Total	800			16

SEMESTER II

CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
FAD203A FAD203B	Fabric Science & Analysis	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD204A FAD204B	Fashion Illustration & Design	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD205A FAD205B	Pattern Making & Garment Construction- II	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
	Environment and Public Health	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				Total	800			16

SEMESTER III								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
FAD303 A FAD303 B	Textile Wet Processing	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD304 A FAD304 B	Fashion Art and Design	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD305 A FAD305 B	Pattern Making & Garment Construction- III	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
	Computer Applications and Information Technology	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				Total	800			16

SEMESTER IV								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	3	30	70	100	2
	Language II	Theory	4	3	30	70	100	2
FAD403A FAD403B	History of Textiles & Costumes	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD404A FAD404B	Textile & Apparel Testing	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
FAD405A FAD405B	Apparel Production	Theory	3	3	30	70	100	2
		Practical	3	3	15	35	50	1
	Communication skills	Theory	3	3	30	70	100	2
	CC&EC	-	-	-	50	-	50	1
				Total	800			16

SEMESTER V								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
FAD501A	Fashion Retail, Marketing & Merchandising	Theory	4	3	50	100	150	3
FAD502A	Apparel Computer Aided Design- I	Theory	3	3	30	70	100	2
FAD502B		Practical	3	3	15	35	50	1
FAD503A	Fashion Accessories	Theory	3	3	30	70	100	2
FAD503B		Practical	3	3	15	35	50	1
FAD504A	Draping	Theory	3	3	30	70	100	2
FAD504B		Practical	3	3	15	35	50	1
FAD505A	Needle Craft	Theory	3	3	30	70	100	2
FAD505B		Practical	3	3	15	35	50	1
FAD 506	Internship Training/craft documentation*	-	6	Report Evaluation	50	100	150	3
	Life Skills & Personality Development	Theory	3	3	30	70	100	2
				Total	1000			20

*The student shall undergo 15 day craft document programme after approval from the institute during the semester holidays between 4th and 5th semesters.

SEMESTER VI								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs/week	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
FAD601A	Entrepreneurship Development	Theory	4	3	50	100	150	3
FAD602A	Apparel Computer Aided Design- II	Theory	3	3	30	70	100	2
FAD602B		Practical	3	3	15	35	50	1
FAD603A	Garment Surface Ornamentation	Theory	3	3	30	70	100	2
FAD603B		Practical	3	3	15	35	50	1
FAD604A	Apparel Total Quality Management	Theory	3	3	30	70	100	2
FAD604B		Practical	3	3	15	35	50	1
FAD605A	Clothing culture & communication	Theory	3	3	30	70	100	2
FAD605B		Practical	3	3	15	35	50	1
FAD606A	Fashion Portfolio & Design Collection	Theory	3	3	30	70	100	2
FAD606B		Practical	3	3	15	35	50	1
	Indian History, Culture and Diversity	Theory	3	3	30	70	100	2
				Total	1000			20

A stands for theory & B stands for practical

**I Semester
B.Sc. (Fashion & Apparel Design)
FIBRE & YARN SCIENCE**

**FAD103A
Total Hrs: 48**

**Exam Hours: 3
Exam Marks: 70
Internal Assessment: 30**

Objectives

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

Unit 1	4 hrs
Introduction to textile fibers-Definition, Sources, Classification and properties of textile fibres	
Unit 2	6 hrs
Cellulose fibers-Cotton, flax, kapok, hemp, ramie- Properties and end uses, Protein fibers-Silk, Wool – Properties and end uses	
Unit 3	6 hrs
Regenerated cellulose fibers- Viscose Rayon, Acetate Rayon, Tencel, Modal, Bamboo, Lyocel – production source, properties and end uses	
Unit 4	6 hrs
Synthetic fibers-Nylon, polyester, acrylic and modacrylic- properties and end uses, Polyethylene, polypropylene, olefin, Elastomeric fibers (spandex and lycra)- End uses.	
Unit 5	10 hrs
Yarn manufacturing process for short staple fibers, Spinning Process:- Ring and open end yarn spinning. Flowchart for manufacturing carded, combed yarn and folded yarn, Difference between Rotor, Ring spinning and Air jet spinning	
Unit 6	8 hrs
Polymers - Polymerization, degree of Polymerization, different types of polymers- addition and condensation, orientation and crystallinity, characteristics of fiber forming polymers, general physical and chemical properties of fibers.	
Unit 7	6 hrs
Texturisation - types (simplex and complex yarns) and uses, Blends- types, uses of blended yarns.	
Unit 8	2 hrs
Sewing threads- types and properties, fancy yarns-types and uses.	

References

1. E.P.G. Gohl, L. D. Velensky, "Textile Science" CBS Publishers and Distributors, 2003
- 2 A.J. Hall. "The standard hand book of Textiles", Wood head Publishing 8th edition, 2004
3. P.V. Vidyasagar, "Hand Book of Textiles", A. Mittal Publications, 2005
4. Sara J. Kadolph, "Textiles", Prentice Hall, 10th edition 2007
5. J. Gordon Cook, "Hand Book of Textile Fibres", Vol- II Man Made Fibers, Wood Head Publishing.
6. Bernard P. Corbman, "Textiles Fiber to Fabric" McGrawhill Publications, 6th, Edition 1983
7. Gilbert R. Merrill, "Cotton Opening and Picking" Universal Publishing Corporation, 1999
8. Gilbert R. Merrill, "Cotton Combing" Universal Publishing Corporation, 1999

**I Semester
B.Sc. (Fashion & Apparel Design)
FIBRE & YARN SCIENCE Practicals**

**FAD103B
16 practicals of 3 hrs each**

**Exam- 3 hours
Exam- 35 marks
Internal Assessment- 15**

Unit 1	6
Identification of different types of fibres by physical & chemical methods- cotton, Viscose, Silk, Wool, polyester, Nylon fibres	
Unit 2	6
Geometrical properties of yarn – Twist, Count of the yarns using different yarn numbering system	
Unit 3	2
Identification of yarns by physical method– spun & filament yarns, ply & novelty yarns	
Unit 4	2

Identification of varieties in Sewing threads & study of their properties like count, structure and twist.

**I Semester
B.Sc. (Fashion & Apparel Design)
ELEMENTS OF FASHION & DESIGN**

FAD104A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives:

- To introduce students to elements and principles of design
- To impart knowledge on fashion art and its importance

Unit 1

6 hrs

Art Media and Application – pencils, colour pencils, oil pastels, water colour, poster colours, acrylic colours, fabric colours, markers, collage, frottage, montage.

Unit 2

8 Hrs

Elements of Fashion process: Fashion origin, evolution- with examples from different eras till French revolution, Fashion cycles, Fashion theories and terminologies

Unit 3

4 hrs

Basic sketching techniques and sketching from life, Perspective and its uses, Grid technique of rendering

Unit 4

4 hrs

Introduction to Anatomy, study of bone and muscular structure, proportions of males, females and children. Study of face, torso, legs and arms

Unit 5

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 (Prang, Munsell colour system, Pantone Colours, colour wheel, colour value scale, grey scale, colour schemes, colour psychology, colour and emotions, Indian approach to colour),.

Unit 6

10 Hrs

Elements of Fashion illustration: Introduction to Fashion illustration-History, importance, artists and illustrators of national and international repute.

Unit 7

4 hrs

Introduction to Fashion Art, Proportion and the Fashion Figure- 8 head, 10 head, 12 head theory of fashion drawing

References:

1. Piper, David, “The Joy of Art”, – Mitchell Beazley Publishers, 1984.
2. Janson, H.W – History of Art – revised edition.
3. Stanyer, Peter, “The Complete Book of Drawing Techniques” – Arcturus Publishing Limited for Book Mart Limited 2003.
4. Tomory, Edith, “A History of Fine Arts in India and the West” – Orient Longman Publishers reprinted 1999.
5. Colour book – Pantone books.
6. Colour harmony- “A Guide to creative colour Combination”, by- Hideaki Chijiwa.

**I Semester
B.Sc. (Fashion & Apparel Design)
ELEMENTS OF FASHION & DESIGN**

Practicals

FAD104B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1

3

Introduction to art media and its applications, Line Sketching and Painting techniques, Object 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

3

Elements of design: Point, Line, Shape, Space, Color and texture. Principles of design- proportion, balance, rhythm, Emphasis and harmony.

Unit 3	4
Colour Schemes and Free hand drawing and Design, Grey scale, colour value scale (10 values), Colour wheel, colour scheme- primary, secondary, tertiary, color scheme monochromatic, achromatic, complementary, double split ,analogues using natural/geometric/ abstract/ stylized/conventional motifs, Tints, Shades, cool & warm colour.	
Unit 4	3
Fashion Illustration basics, Simple blocking and fleshing of the Fashion figure. 8 head, 10 head, 12 head figures in simple standing poses.	
Unit 5	3
Fabric rendering: Learning to simulate textures of various fabrics- Cotton, silk, fur, denim, print, georgette, chiffon, knitted, crochet, lace, embroidered .	

**I Semester
B.Sc. (Fashion & Apparel Design)
PATTERN MAKING & GARMENT CONSTRUCTION- I**

FAD105A

Total Hrs: 48

Exam Hours: 3

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	14 hrs
Introduction to pattern making & Garment construction, History of sewing machine. Introduction to sewing machine: Domestic sewing machine, Industrial sewing machine, difference between Domestic & Industrial sewing machine, parts of a sewing machine, Varieties of industrial sewing machines- Single needle machine, double needle machine-lock stitch & chain stitch machines over-lock machine, sewing machine needles- types, parts & functions, care and maintenance of sewing machine ,sewing threads- function, performance, characteristics.	
Unit 2	6 hrs
Introduction to Tools for pattern making and Garment construction- Measuring tools, marking tools, Cutting tools, sewing tools, Pressing tools, different GSM paper & its uses.	
Unit 3	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 ASTM standards, stitch properties, stitch classes, stitch types Seams: Definition, terminologies, seam Dimensions, seam classes, super imposed, Lapped, bound, Flat .	
Unit 4	6 hrs
Pattern making terminologies & symbols (notches, punch/circles,) Pattern information (grain, part, piece, cut symbols) seam allowance, fabric terms (grain, Bowing)	
Unit 5	6 hrs
Figure types & figure analysis (leg types, arm types, shoulders, abdomen, bust back relationship, waist hip relationship and stance). Body & garment relationship, Standardization, importance of body measurements	
Unit 6	4 hrs
Introduction to basic pattern- commercial and custom made patterns	

References

1. Helen J Armstrong, Pattern Making for Fashion Design, Prentice Hall
2. Harold Carr & Barbara Latham, The Technology of Clothing Manufacture, Oxford Pub., USA, 1994
3. Gerry Cooklin, Introduction to Clothing Manufacture, Blackwell Science, UK, 1991
4. Metric Pattern cutting & Grading by Winfred Aldrich.
5. Ruth E. Glock , Grace I. Kunz. Apparel Manufacturing

**I Semester
B.Sc. (Fashion & Apparel Design)
PATTERN MAKING & GARMENT CONSTRUCTION- I**

Practicals

FAD105 B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit - 1	2
Sewing machine- different kinds-functions-uses-attachment-practice on paper, stitching on fabric (straight, curves, corners and circular)	
Unit 2	3
Sketching the 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.	
Unit 3	2
Sewing techniques - Basic hand stitches- basting, running, tacking, hand overcast, buttonhole, hemming stitches - plain & blind hemming, slip stitch, tailor's tack	
Unit 4	2
Seam & seam finishes- Plain, flat fell, French, turned & stitched, lapped, double top, pinked, over lock, & pinked and stitched	
Unit 5	2
Working of over lock machine and double needle lock stitch machine	
Unit 6	2
Pattern preparation for women's basic blocks front, back, sleeve & skirt	
Unit 7	3
Preparation of muslin basic blocks, test fitting, front, back, sleeve and skirt, pattern alterations	

II Semester**B.Sc. (Fashion & Apparel Design)
FABRIC SCIENCE & ANALYSIS****FAD203A****Total Hrs: 48****Exam Hours: 3****Exam Marks: 70****Internal Assessment: 30****Objectives:**

- To impart knowledge on woven fabrics
- To help students understand fabric formation process

Unit 1**2 hrs**

Introduction on different methods of fabric formation- woven, knitted and nonwoven fabrics, Properties and end uses

Unit 2**12 hrs**

Woven Fabric formation – weaving preparatory, objectives and brief study of process- winding, warping, sizing, Drawing and denting, Weft winding, Introduction to Khadi, Hand loom and power loom Fabrics. Classification of looms, Passage of material through loom, study of primary and secondary motions, Principle of Shuttleless loom Viz Multiple gripper, Rapier, Airjet, Waterjet looms. Advantages of unconventional looms over conventional looms

Unit 3**6 Hrs**

General Characteristics of woven fabrics and their importance– count of yarn, fabric grain, Thread density, Fabric width, Fabric weight and selvages.

Unit 4**12 hrs**

Elementary weaves – Classification of woven fabrics. glossary and characteristics, construction, salient features- of Plain weave – variation (rib and Basket), Twill weave – variation (RHT, LHT, Pointed and Herringbone) and Satin / Sateen weave – variation. Fabric Design and graphical representation of the above weaves. Introduction and salient features of Crepe fabrics like georgette, chiffons, Extra threads, Warp and weft pile and Brocade and damask, Terry pile structures.

Unit 5**8 hrs**

Introduction to Knitting – Classification, difference between warp and weft knitting, Basics of weft knitting, Loop diagram and properties of basic weft knitted structures, Modification of weft knitted structures.

Unit 6**8 hrs**

Brief discussions of important fabric manufacturing clusters in India and their salient features- Kancheepuram, Arni, Kumbakonam, Chanderi, Maheshwari, Salem and Karur, Bangalore, Mysore, Illkal, Guledgudda, Kota, Banaras, Suhalkuchi, santhipur, Beharampur of Orissa, Pochampalli and panipat.

Reference:

1. J.J.Pizzuto, "Fabric Science" 6th edition, Fairchild publications.
2. W.S. Murphy, "Handbook of weaving" Abhishek publication.

3. Z.J.Grosicki, "Watson's Textile Design & Colour", 7th edition, Wood head Publication.
4. W.S. Murphy, "Textile weaving & Design" Abhishek publication, 2003.
5. Corbmann.B.P Textiles : fibre to fabric' Mcgraw Hill Inc. Singapore 1986
6. Spencer D.J. 'knitting Technology'PergamonPress,Oxford 1982

II Semester
B.Sc. (Fashion & Apparel Design)
FABRIC SCIENCE & ANALYSIS

Practicals

FAD203B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1

14

Analysis of different fabrics for clothing construction and weaves like Plain, twill, Sateen, satin honeycomb, herringbone and mockleno etc. and finding the particulars like fabric geometrical parameters and coverfactor.

Unit 2

2

Collection and portfolio preparation of 25 different commercial samples with different weaves and weight for apparels, furnishing, House hold application, support material for garments and trims

II Semester
B.Sc. (Fashion & Apparel Design)
FASHION ILLUSTRATION & DESIGN

FAD204A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives:

- Introduction to fashion illustration and its role in fashion design
- Basics of clothing origins

Unit 1

4 hrs

Introduction to fashion Illustration and brief history of fashion illustration, Study of two well known Fashion Illustrators.

Unit 2

8 hrs

Fashion Figure, 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

Unit 3

8 hrs

Fashion terminologies – fashion, fad, cycle, style, classics, boutique, trend, haute couture, designer, prêt a porter, silhouette, croquis, taste, Fashion icon, fashion follower, muse

Unit 4

7 hrs

Origins of fashion and clothing theories, Clothing as modesty, protection, status and religious symbol, Fashion as status symbol, the major fashion centers and Fashion theories

Unit 5

6 hrs

Garment Features –types of silhouettes, collars, yoke variations, pockets, cuffs, sleeves Trousers, Fashion silhouettes - types of silhouettes, blouses formal, casual, and shirts – men and women. Skirts flared, pencil, circular, trousers, collars, cuts, yokes, pockets, cuffs as seen in illustration

Unit 6

8 hrs

Fashion Psychology, role of clothing in physical, social, psychological and cultural scenario, Human behaviour and clothing, Clothing and gender differentiation

Unit 7

7 hrs

Fashion designers, history and look into design concepts of famous designers, both Indian and International.

References:

- Ireland, Patrick John - Encyclopedia of Fashion Details, B.T. Batsford Ltd.
- Ireland, Patrick John – Fashion Design – Drawing & Presentation B.T. Batsford Ltd
- Waddell, Gavin – How Fashion Works- Blackwell Science Ltd.
- Ireland, Patrick John - Fashion Design Illustration - Women, B.T. Batsford

II Semester
B.Sc. (Fashion & Apparel Design)
FASHION ILLUSTRATION & DESIGN

Practicals

FAD204B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1

2

Fashion illustrations – 8 head, 10 head, 12 head figures standing, moving and Drawing male, female and children figures, Model drawing.

Unit 2

4

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

Unit 3

2

Garment Features –types of collars, cuts, yokes, pockets, cuffs, sleeves (5 each)

Unit 4

2

Drawing of fashion silhouettes - Types of silhouettes, blouses, shirts. Skirts , trousers, dress

Unit 5

2

Foreshortening of figures, grouping of figures. – Thematic figure composition

Unit 6

4

Preparation of portfolio of five designs each inspired by one Indian and one international designer

II Semester
B.Sc. (Fashion & Apparel Design)
PATTERN MAKING & GARMENT CONSTRUCTION - II

FAD205A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives:

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

Unit 1

4hrs

Fullness- Darts, pleats, tucks, gathers, Sleeves- Definition, terms, classification, types-basic sleeve, gathered, bell, kimono, raglan, leg of mutton & construction

Unit 2

6hrs

Dart Manipulation- conversion of darts to tucks, pleats, gathers, seam lines etc.

Unit 3

6hrs

Collars - Definition, terms, classification, and types –Peter pan, sailor, Turtle collar, shawl, formal shirt collar, Mandarin, collar with stand & its variations& construction

Unit 4

4hrs

Yokes-Definitions, purpose, types-with fullness & without fullness, Shapes & construction

Unit 5

4hrs

Pockets- Definitions, purpose, Patch pockets, Patch pockets with flap, Seam pockets, welt pockets& variations

Unit 6

4hrs

Neck line Finishes- piping, facing (bias facing, shaped facing).

Unit 7

6hrs

Plackets- definition, types Self, front placket, continues bound placket, two piece sleeve placket and shirt placket

Unit 8

6hrs

Skirts – Basic-flared, circular, gathered, pleated, basic waist band application

Unit 9

4hrs

Dress categories: with waistline without waist line, silhouettes, torso dress, princess, panel & drafting

Unit 10

2 hrs

Sleeves – definition, terminologies, types- Sleeves along with bodice and set in sleeves.

Unit -11

2 hrs

Fasteners- press buttons, hook & eye, shirt button, button holes, concealed zippers & zips

References:

1. Winfred Aldrich, "Metric Pattern Cutting", Black Well Science, UK
2. Helen J. Armstrong, "Pattern making for fashion design" Prentice Hall

II Semester
B.Sc. (Fashion & Apparel Design)
PATTERN MAKING & GARMENT CONSTRUCTION – II

Practicals**FAD205B****16 practicals of 3 hrs each****Exam- 3 hours****Exam- 35 marks****Internal Assessment- 15**

Unit 1	2
Fullness – gathers, pleats, ruffles, tucks, godets etc.	
Unit 3	2
Dart Manipulation- conversion of darts to tucks, pleats, gathers, seam lines etc.	
Unit 3	2
Sleeves- plain, gathered, raglan, kimono	
Unit 4	2
Collars- peter pan, turtle neck, Chinese, shawl, shirt	
Unit 5	2
Yokes-With and without fullness style lines	
Unit 6	
Pockets-Patch pockets, Patch pockets with flap, Seam pockets.	2
Unit 8	2
Finishes- neckline finishes- facing, shaped facing and piping/binding.	
Unit 9	2
Placket finishing- continuous/ one piece, bound/ two piece placket	
Unit 10	2
Zippers: applications lapped zip, centered zip, concealed zip, fly zip	

III Semester
B.Sc. (Fashion and Apparel Design)
TEXTILE WET PROCESSING

FAD303A**Total Hrs: 48****Exam Hours: 3****Exam Marks: 70****Internal Assessment: 30****Objectives:**

- To impart knowledge of textile and garment wet processing
- To introduce students to various chemicals, dyes and auxiliaries used for chemical processing

Unit 1 **6 hrs**

Introduction to wet processing, sequence of wet processing operations for cotton, silk and wool, Brief discussion on Equipments and machineries used for wet processing.

Unit 2 **8 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.

Unit3 **8 hrs**

Dyeing- Introduction, classification, Methods of dyeing: stock, yarn, piece and union, application of direct, basic, acid, vat, 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 **8 hrs**

Finishes- definition, types- Temporary and permanent Finishes, Basic/routine—Tentering, Decatising, sanforising, calendaring, Functional/ special-waterproof and water repellent, Wrinkle free, antimicrobial, Flame retardant and other special finishes.

Unit 6 **4 hrs**

Garment processing and finishing: Importance of garment dyeing and finishing, Special finishes used for denims.

Unit 7 **6 hrs**

Care of fabrics – Principles of laundering, stain removal, various solvents used and different methods of washing, soaps and detergents used during washing.

References

1. A J Hall ‘The standard Hand Book of Textiles’ Woodhead Publication, 2004
2. J E Smith ‘Textile Processing’ – Printing ,Dyeing ,Abhishek Publishing,2003
3. Kate Broughton textiles Dyeing , Rockport publishers, 1996
4. W.S Murphy, ‘ Textile Finishing’ Abhishek Publication, 2000
5. Rosi Robinson ‘Creative Batik’ Search Press,2004
6. Janice gunner ‘Shibori for textile Artist’ Batsford London

**III Semester
B.Sc. (Fashion & Apparel Design)
TEXTILE WET PROCESSING**

Practicals

FAD303B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1	2
Scouring, Bleaching and Mercerization of Cotton yarn/Fabric	
Unit 2	2
Degumming and Bleaching of silk yarns	
Unit 3	4
Dyeing of cotton yarn/Fabric by Direct, reactive, Vat dyes	
Unit 4	3
Dyeing of silk yarn/ Fabric by acid and reactive dyes.	
Unit 5	1
Dyeing of polyester yarn/fabric using Disperse dyes	
Unit 6	2
Printing of fabric using screen and Block using pigment, reactive and direct dyes	
Unit 7	1
Tie and dye of cotton or silk fabric using reactive colors	
Unit 8	1
Batik printing of cotton and silk fabric	

**III Semester
B.Sc. (Fashion & Apparel Design)
FASHION ART AND DESIGN**

FAD303A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives:

- To help students to understand the fundamental and principles of figure design
- To understand different illustration technique and dynamic figure sketching

Unit 1 **6 hrs**

Design – Types, design development, motif, pattern and layout, design manipulation, inspiration from nature and history.

Unit 2 **6 hrs**

Fashion design – Definition, Fashion categories based on age and activity – Types- casual, formal, sports and ethnic.

Unit 3 **8 hrs**

Flat sketch and spec- Its importance and application, design sketching, ways of layout, flats for men, women and children's wear.

Unit 4 **6 hrs**

Designing of dress based on figure types- colour combination, various garment to create optical illusion.

Unit 5 **8 hrs**

Fashion clothing psychology- History, selection of clothing, personality, attitude and motivation.

Unit 6 **6 hrs**

A detail study on one Indian and International – concept, design, creation and collection.

Unit 7 **8 hrs**

Study of advanced illustrative Techniques and three dimensional views.

III Semester

B.Sc. (Fashion & Apparel Design)

FASHION ART AND DESIGN

Practicals

FAD303B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit: 1

3

Design development – motif, design, pattern and repeats, full, 1/4th, 1/2, 3/4th drop, brick, mirror, ogee, geometrical forms- concentric, corner, circular, and cylindrical.

Unit: 2

4

Body figures and features- Face- eyes, nose, lips, ears, arms and legs , Hair styling- women's, men, different hair coloring, retro, punk, hip hop, hippie, traditional and bridal.

Unit: 3

3

Figure drawing – Fashion figure, stylized figure of 10 and 12 head for different figure postures.

Unit: 4

4

Fabric rendering – Fashion rendering on croquis- woven-cotton, denim, lace, net, corduroy, printed- natural, abstract, stylized, knits- pearl, rib and cable.

Unit: 5

3

Fashion sketching of advanced illustration techniques and 3 dimensional views.

III Semester

B.Sc. (Fashion and Apparel Design)

PATTERN MAKING & GARMENT CONSTRUCTION - III

FAD305A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objective:

- To familiarize students with clothing construction for different sizes & categories

Unit 1

6hrs

Definition layout, importance, principles, types of layout, importance of fabric estimation, advantages, methods of estimating material requirement for garment- easy method & formula method of estimation.

Unit 2

3hrs

Introduction to manual and computerized pattern development, mini marker. Softwares used for pattern development. Introduction to Digitizer plotter and scanner .

Unit 3

3hrs

Handling special fabric-factors for consideration while making patterns & garment construction using special fabrics-stretch fabrics, knit, checks, plaids, velvet, leather, fur & lace.

Unit 4

6hrs

Interlining- interfacing- materials, types, properties, applications & machinery

Unit 5

6hrs

Bifurcated garments: Introduction of culottes, trouser & its variations

Unit 6

6hrs

Foundation garments- Introduction, materials used & types of fitting for men's innerwear briefs& trunk., swimwear Women's innerwear brassier & panties.

Unit 7 **6hrs**

Fitting- principles of fitting, standards for a good fit, e-fitting, body scanner, 3D simulators .

Unit 8 **6hrs**

Pattern alteration techniques- pivot, slash & seam method-length- width- front-back-sleeve shirt-Skirt-trousers

Unit 9 **6hrs**

Grading — definition, sizes, principles, types, grading points, & importance of manual and computerized grading and software's used for grading.

References:

1. Winfred Aldrich, Metric Pattern Cutting, Blackwell Science, UK.
2. Patric Taylor et.al., Grading for the Fashion Industry, Stanley Thomas Ltd., 1990
3. Helen J Armstrong, pattern making for Fashion Draping,

III Semester

B.Sc. (Fashion & Apparel Design)

PATTERN MAKING & GARMENT CONSTRUCTION - III

Practicals

FAD305B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1

4

Designing & construction of garments with style features using drafting, flat pattern technique- kids wear, Casual ladies shirt, computerized pattern development for children's men and women's .

Unit 2

3

Designing & construction of garments with style features, men's shirt/ women's top

Unit 3

5

Designing with style features and constructing men's and women's trouser

Unit 4

2

Designing & construction waist coat- Men's/Women's

Unit 5

2

Manual and computerized grading of patterns – Men's, Women's and Kids

IV Semester

B.Sc. (Fashion and Apparel Design)

HISTORY OF TEXTILES AND COSTUMES

FAD403A

Total Hrs. 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives:

- Imparting Knowledge of textiles through the previous centuries to influence the sense of design
- Symbolism of motifs and colours

Unit 1:

5 Hrs

Introduction to world textiles and costumes- History, Types, Motifs & Symbols

Unit 2:

8 Hrs

Pre-historic textiles & costumes- Indus Valley, Egyptian, Mesopotamian, French, Greek, Roman, Japanese & Byzantine

Unit 3:

6Hrs

Textiles & costumes of Colonial, Victorian, Edwardian Era, WW I & WW II, factors influencing Costume Change- style, religious, location, climatic period & world affairs.

Unit 4:

8 Hrs

Ancient Indian textiles & costumes- vedic, mauryan, kushans, Gupta & Mughal

Unit 5: French revolution, French costumes- from Renaissance to 20th century **3Hrs**

Unit 6: An overview of textiles – textile design, symbolic motifs of various culture from ancient to modern day- 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. **8 Hrs**

Unit 7: A study of regional textiles & costumes of India- north, east, west & south **8Hrs**

References:

Dr. ParulBhatnagar Traditional Indian costumes & textiles”, Abhishek Publication.
Jamila BrijBhusan The Costumes and textiles of India -, Taraporevala- Bombay.
Jamila BrijBhusan Master piece of Indian jewellery -, Taraporevala- Bombay
Konemann A history of Fashion in the 20th Century -
Phyllis Tortora, Keith Eubank Survey of historical costumes, A History of western dress”, , Fairchild Publication

IV Semester
B.Sc. (Fashion & Apparel Design)
HISTORY OF TEXTILES AND COSTUMES

Practicals

FAD403B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1:

Sketching of costumes & fabric swatches of Egyptian, Greek, Roman, French & Japanese **3**

Unit 2:

Sketching of costumes – Indus valley, vedic, mauryan, kushans & Gupta. **3**

Unit 3:

Sketching of costumes –Mughal – men & women. **3**

Unit 4:

Saree designing using Indian motif, border, all over & pallu **3**

Unit 5:

Sketching of regional costumes of India (men & women) **4**

IV Semester
B.Sc. (Fashion and apparel Design)
TEXTILE AND APPAREL TESTING

FAD404A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives

- To help students to understand the testing of fabrics and garment accessories.
- To provide students with the knowledge on testing.

Unit 1

Introduction to textile testing, objectives of testing, Selection of samples for testing **6Hrs**

Unit 2

Yarn testing - yarn count, Yarn twist, twist direction, amount of twist, and effects of twist on fabric properties, measurement of twist. **4Hrs**

Unit 3

Fabric testing- fabric dimensions- length, width, thickness, determination of fabric weight - GSM measurement and its application to different fabrics, cover factor, air permeability, stiffness, drape, crease resistance, abrasion resistance, pilling, bow & skew. **12Hrs**

Unit 4

Determination of colour fastness to laundering, rubbing, light and perspiration, Fabric shrinkage **6Hrs**

Unit 5 **8Hrs**
Tensile testing of textiles- Terminology and definition- load, elongation, stress, strain test methods, bursting strength test, Tear strength.

Unit 6 **12Hrs**
Garment and garment accessories testing – testing of fusible interlinings, zippers, elastic waistband, sewing threads, buttons, snap fasteners, wear testing. Tensile properties of seams and stitches, zipper strength test, dimensional stability of fabrics. Colour fastness of garments to washing and light.

References

1. J.E .Booth, “Principles of Textile Testing,” CBS Publishers and Distributors, 1996
2. B.P. Saville, “Physical testing of Textiles”, Woodhead Publishing Ltd. 1999
3. Pradeep V. Mehta, “Managing Quality in Apparel Industry,” New Age international Ltd.
4. J.N. Mandal, D.G. Divshikar,” A Guide to Geo Textiles Testing,” New Age International Ltd
5. ArindamBasu, Textile Testing, SITRA Publications.

IV Semester
B.Sc. (Fashion and apparel Design)
TEXTILE AND APPAREL TESTING

Practicals
FAD404B
16 practical’s of 3 hrs each

Exam- 3 hours
Exam- 35 marks
Internal Assessment- 15

Unit 1	3
Fabric construction particulars: aerial weight, thickness, thread count, cover factor equipments to be used are GSM cutter & Weighting balance, Beasley Balance, Pick Glass, Dissection Needle, Calculator and Fabric thickness tester.	
Unit 2	1
Determining shrinkage of fabric using shrinkage tester.	
Unit 3	1
Determining fabric bending properties using stiffness tester	
Unit 4	1
Determinations of fabric drape using drape meter.	
Unit 5	3
Determining fabric tensile strength using tensile tester.	
Unit 6	1
Determining Fabric Abrasion using abrasion tester.	
Unit 7	1
Determining fabric crease recovery using crease recovery tester.	
Unit 8	1
Determining fabric Pilling using pilling tester.	
Unit 9	1
Determination of colour fastness to rubbing using crock meter.	
Unit 10	1
Determination of colorfastness to washing using washing fastness tester.	
Unit 11	1
Determination of colorfastness to light	
Unit 12	1
Determination of garment accessories testing - Button, Snap pull test, zipper test, seam strength test.	

IV Semester
B.Sc. (Fashion and apparel Design)
APPAREL PRODUCTION

FAD 405A
Total Hrs: 48

Exam Hours: 3
Exam Marks: 70
Internal Assessment: 30

Objectives:

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

Unit 1	4 hrs
Introduction to Apparel production, Structures of apparel business, structure of the apparel industry, global apparel manufacturing, Apparel Manufacturing set-ups as per the Product specification.	
Unit 2	4hrs
Sourcing- Introduction to fabric and accessory sourcing, its types.	
Unit 3	8hrs
Sampling department- importance of sampling department, objectives, types of sample- prototype, fit sample, pp sample, size set, production sample, shipment sample. Technical design reading, Tech pack analysis& objective, creating tech pack.	
Unit 4	6 hrs
Cutting department: Machineries, fabric spreading, pattern laying, marker preparation, sorting, numbering & bundling, fusing department- methods of fusing, fusing machines	
Unit 5	8 hrs
Production department: selection of production system- progressive bundle system, unit production system, modular manufacturing, piece work. Production planning, Linear manufacturing process.	
Unit 6	6 hrs
Finishing & pressing department, trimming department, packing department	
Unit 7	4 hrs
Apparel accessories & components - fasteners, labels, support materials, decorative trims, tapes & packing materials	
Unit 8	4hrs
In process quality inspection, objectives methods, advantages, inspection methodology, final inspection, random inspection, general inspection method for shirts, trouser and kids garments.	
Unit 9	4hrs
Introduction to export documentation, objectives, 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. Ruth E G, Grace I Kunz Apparel Manufacturing Sewn Product analysis
2. Chutler A J, Introduction to clothing Production Management, Blackwell Science, UK, 1998
3. Harold Carr & Barbara Latham, the Technology of Clothing Manufacture, Oxford Pub. USA, 1994
4. Rajesh Bheda, Managing productivity in the Apparel Industry, CBS pub., New Delhi.

**IV Semester
B.Sc. (Fashion & Apparel Design)
APPAREL PRODUCTION**

Practicals	
FAD405B	Exam- 3 hours
16 practical's of 3 hrs each	Exam- 35 marks
	Internal Assessment- 15
Unit 1	2
Analysis of spec sheet	
Unit 2	3
Stitching of jackets for Men's / Women's	
Unit 3	3
Stitching of casual shirt Men's / Women's using block including development of illustration, flat sketches, technical drawing, spec sheet, component drawing, consumption & calculation of fabric, trims and supporting materials, costing of the product.	
Unit 4	3
Stitching of formal shirt Men's / Women's using block including development of illustration, flat sketches, technical drawing, spec sheet, component drawing, consumption & calculation of fabric, trims and supporting materials, costing of the product	
Unit 5	3
Stitching of trouser Men's / Women's using block including development of illustration, flat sketches, technical drawing, spec sheet, component drawing, consumption & calculation of fabric, trims and supporting materials, costing of the product	
Unit 6	2
Folio on all accessories & components	

V Semester
B.Sc. (Fashion and apparel Design)
FASHION RETAILING, MARKETING AND MERCHANDISING

FAD501

Total Hrs: 64

Exam Hours: 3

Exam Marks: 100

Internal Assessment: 50

Objectives:

- To acquaint students with various marketing and merchandising procedures
- To introduce students to fashion retailing.

Unit 1

5hrs

Introduction to Retail, Marketing, Management and Merchandising, terminologies

Unit 2

9 hrs

Fashion retailing-History, Scope, Importance, Types (Domestic and International), techniques, channel of distribution

Unit 3

9hrs

Marketing – types, four P's, fashion promotion advantages, trade shows, exhibitions, fashion shows, market survey and research

Unit 4

6hrs

Types of merchandising, concepts, merchandise planning, sampling- Importance, counter sample.

Unit 5

5 hrs

Brand building-Introduction, strategies, image building, brand expansion, global trends

Unit 6

12 hrs

Visual Merchandising-Interior, exterior window display, store planning and layout-fixtures, location, lighting, dressing, props and promotions, masking and proscenia, mannequins and three dimensional dressing

Unit 7

6 hrs

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

Unit 8

12 hrs

Retail merchandiser, concept, quick response, Just –in-Time, merchandiser calendar, trend analysis, forecast analysis, concepts of apparel product line, planning, directing, coordinating and controlling

References

1. Laura L Bliss, Study Guide Visual Merchandising and Display III edition, 1995- Fairchild Publications.
2. Castelino. M. Fashion Kaleidoscope, Rupa& Co. 1994.
3. Gibson. G. Vedomani, Retail Management, Jaico Publishing House, Bangalore
4. Elaine Stone, The Dynamics of Fashion, Fair Child Publication
5. Brenda Sternquist, International Retailing, Fairchild Publication, New York
6. Martin. M. Pegler, Store Window No.14, No 12, Visual reference Publishers, New York

V Semester
B.Sc. (Fashion and apparel Design)
APPAREL COMPUTER AIDED DESIGN-I

FAD502A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives

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

Unit 1

6Hrs

CAD definition, Fundamentals of CAD – Introduction, general process of design, application of computers for design, Creating the manufacturing Database, Benefits of CAD, Computers & the Fashion Industry, Quick response technology, CAD in Today's Fashion Industry

Unit 2

4Hrs

Hardware in CAD – Introduction, the design workstation, the graphics terminals, operator, input devices, plotters and other output devices, the central processing unit, secondary storage.

Unit 3

6Hrs

Computer Graphics Software and Data – Introduction, the software configuration of a graphics systems, functions of a graphics package, Database structure & content, Geometric modeling – 3D modeling, other CAD software feature.

Unit 4 **6Hrs**

Basic maintenance of operations – preference, setting up a document, what is resolution, saving files, file formats, zooming in & out, view options, CAD approach to design, vector graphics object Vs Raster design.

Unit 5 **4Hrs**

Introduction to DBMS features of a DBMS, Advantages of using DBMS.

Unit 6 **6Hrs**

Photoshop & Corel Draw – Introduction, features and its applications.

Unit 7 **8Hrs**

Fashion trend forecasting websites – Introduction, leading online trend-analysis and research service on creative and business intelligence for the apparel, style, design and retail industries, insight and creative inspiration, real-time retail coverage, seasonal trend analysis, consumer research and business information.

Unit 8 **4Hrs**

CAD applications in fashion field – garment designing, weaving, knitting and embroidery and textile dyeing and printing

Unit 9 **4Hrs**

Presentation & Graphics – External & Internal presentation of apparel industry, planning a presentation, Computer – generated presentation, Computer – generated catalogues, Presentation boards (Preparing portfolio presentation), Multimedia and 3D presentation.

References:

1. Winfred Aldrich, CAD in Clothing & Textiles, Blackwell Science, 1994.
2. Cad for Fashion Design by Renee Weiss Chase, Prentice hall Pub.
3. CAD/CAM Computer Aided Design & Manufacturing by Mikell P Groover&Mory W Zimmers. Jr, Pearson Education Pub.
4. CAD/CAM/CIM by R.Radhakrishnan, S.subramanyan, V.Raju, New Age International Pub.
5. Fashion Design on Computers By M.kathleenColursy, Prentice Hall.

V Semester

B.Sc. (Fashion & Apparel Design)

APPAREL COMPUTER AIDED DESIGN - I

Practicals

FAD502B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Instruction:

Following software required for the practicals

- Fashion forecasts website
- Photoshop for collage work
- CorelDraw for Flat sketches.
- Fashion Studio for draping of garments
- Pattern making software for pattern making, grading and marker making.

Unit 1 **2**

Introduction to fashion trend forecasting websites, how to navigate the website, sourcing the computer about fashion trend forecasting

Unit 2 **2**

Introduction to Photoshop - Photoshop tools in detail, enhancing images, Masking, transforms, working with layers. Merging & blending layers, text effects.

Unit 3 **2**

Creating an advertising brochure. Painting & rendering in Photoshop, creating & manipulating Fashion Model drawings, gradient's use for rendering & 3D effects, making collage in Photoshop, Applying filters

Unit 4 **2**

Create Mood / Inspiration, client / customer, colour and Texture board using Photoshop.

Unit 5 **2**

Introduction to Coral Draw. Learning basic tools of Coral Draw. Using Basic Shapes, Transformations, Duplicate, Cloning. Applying fill, outlines, special effects, shaping objects, creating custom Shapes using basic shapes and other drawing tool, working with the text, Effects, Shaping object with envelope tool, Power Clip objects, splitting and erasing portion of objects.

Unit 6 **2**

Creating fashion accessories like necklace, bracelet, anklets, ear ring, and head gear .Etc Using Coral Draw.

Unit 7 2
Motifs development – Symmetrical/Asymmetrical, Balanced/Unbalanced, Repeat – ½ drop, ¼ drop, ¾ drop – H/V. Drop reverse, Design placements on boarders, pallu& Allover

Unit 8 2
Logo Designing, Creating Tags & Labels – Main label, Size label, Wash Care label, Content label using Corel Draw

V Semester
B.Sc. (Fashion and apparel Design)
FASHION ACCESSORIES

FAD503A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives:

- To impart knowledge of fashion Accessories
- To provide opportunity and to design and to develop fashion accessories

Unit – 1 4 Hrs.

Fashion accessories- Introduction, definition. History, Classification.

Unit – 2 6 Hrs.

Accessory types- Head gears, Handwears- Watches, umbrella, parasols, Foot wear, Bows, ties and belts, Hand bags, Gloves, Scarfs, Stoles, Shawls,

Unit – 3 6 Hrs.

Materials and processes-leather, straw, wood. Materials required. Material sourcing. Design development & production.

Unit – 4 8 Hrs.

Trends and Marketing- Fashion trends and marketing of accessories. Study of any 2 accessory designers.

Unit – 5 9 Hrs.

Jewellery- Jewellery Design and production, Types of jeweler, Traditional Indian jewellery.

Unit – 6 4 Hrs.

Gemology- Introduction to gems, Basic qualities of gems.

Reference:

- “Quick style”, by- Christine Kunzerlman.
- “Know your Fashion Accessories” by- Celia Stall-meadows, Fair child publication.
- “Master piece of Indian jewellery”, by- Jamila BrijBhusan, Taraporevala- Bombay

V Semester
B.Sc. (Fashion and apparel Design)
FASHION ACCESSORIES

Practicals

FAD503B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit – 1 4

Sketching and rendering of headgear, hand wear, foot wear and hand bags (3 each).Construction of any one.

Unit – 2 4

Sketching and rendering of belts, gloves and construction of any one.

Unit – 3 4

Sketching of Indian jewellery- Mughal Jewellery, Thewa, Kundan Jewellery, Temple Jewellery

Unit – 4 2

Sketching of accessories on women and men's croqui (2 each)

Unit – 5 2

Jewellery designing based on theme. (with Concept Board)

V Semester
B.Sc. (Fashion and Apparel Design)
DRAPING

FAD504A
Total Hrs: 48

Exam Hours: 3
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, Tools & equipments used in draping	
Unit 2	6 Hrs
Draping Terminology – Apex, Balance, Plumb line, Trueing, Blocking, Blending, Princess line, Clipping and marking.	
Unit 3	10 Hrs
Draping- Principles of Draping, Fitting methods	
Unit 4	12Hrs
Basic Draping Techniques- Bodice Front, Bodice Back, basic skirt, Dart Manipulation Techniques	
Unit 5	14Hrs
Draping Techniques- Dresses-Bias, Princess line, neckline -Cowl, collar- mandarin, peterpan, Sleeves, Yokes – shoulder, midriff, hip line.	

References

1. Connie Amaden Crawford, The Art of Fashion and Design, Fairchild Publications
2. Jaffe, Hilde and Relis, Nurie, Draping for fashion design, Pearson Prentice Hall
3. Abling, Bina and Maggio, Kathleen, Integrating draping, drafting and drawing, Fairchild Books, Inc.

V Semester
B.Sc. (Fashion and apparel Design)
DRAPING

Practicals

FAD504B
16 practicals of 3 hrs each

Exam- 3 hours
Exam- 35 marks
Internal Assessment- 15

Unit 1	2
Introduction to Draping	
Unit 2	2
Tools & Equipments used in Draping	
Unit 3	2
Basic Draping methods – Bodice Front & Back, Skirt Front & Back	
Unit 4	4
Draping – Sleeves, Collars, cowls, Yokes, fullness.	
Unit 5	4
Draping Dresses – The Straight Shift, Princess Dress.	
Unit 6	2
Development of basic choli and converting the same in to garment.	
Draping of designer choli and evening gown.	

V Semester
B.Sc. (Fashion and Apparel Design)
NEEDLE CRAFT

FAD505A
Total Hrs: 48

Exam Hours: 3
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	2 Hrs
Introduction to Needle Craft, tools and materials used in needle craft	
Unit 2	6 hrs
Embroidery – Definition, Classification, Methods & Implementation of basic embroidery stitch – Straight stitch-Stem, Back, feature stitch; Flat stitch-Satin, Cross; Loop stitch – Herring Bone, Feather stitch; Knotted stitch-French knot, Bullion Knot.	
Unit 3	6 hrs
Basic hand stitches- Techniques used, Application of basting, running, tacking, hand overcast, buttonhole, hemming stitches - plain & blind hemming, slip stitch, tailor’s tack.	
Unit 4	6hrs
Crochet – Introduction, Definition, tools, material, techniques, types of Single crochet, double crochet, treble pattern	
Unit 5	10hrs
Knitting – Definition, Tools & materials used for Knitting, Techniques employed in knitting, Terminologies, Features & Applications of Elementary stitches (Garter, Stocking, Rib, and Moss), Texture, Rib, Diagonal, Lace pattern, Cable pattern, Cross, Knotted.	
Unit 6	8 hrs
Definition ,types, Implementation of Patch work, Appliqué, Quilting- tools, material & techniques	
Unit 7	8 hrs
Special techniques-Introduction, Methods, Types & Application of Braiding, Hooking, Smocking, Macrame Knotting, Bead & Sequins	
Unit 8	2 hrs
Present trend embroideries – Aari work, Zardhosi, cutwork etc.	

References

1. Readers Digest: Complete Guide to Needlework-APH Corp, New Delhi 1996
2. Sheila Paine: Embroidered Textile –Thames & Hudson Ltd.1990
3. Sauter, Gillian, Needlecrafts, Crown Trade Paperbacks, New York
4. Montse Stanley, Knitter"s handbook, David & Charles, Devon
5. Barnden, Betty, Compendium of knitting techniques: 30 tips, techniques and trade secrets, Search Press, Kent, London
6. Gardner, Sue ed., A to Z Crochet: a complete manual for the beginner through to the advanced stitcher, Country Bumpkin Publications, South Australia

**V Semester
B.Sc. (Fashion and Apparel Design)
NEEDLE CRAFT**

Practicals

FAD505B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1	1
Introduction to Needle craft, tools and equipments used in needle craft	
Unit 2	2
Embroidery – Basic embroidery stitch – Straight stitch-Stem, Back, feature stitch; Flat stitch-Satin, Cross; Loop stitch – Herring Bone, Feather stitch; Knotted stitch-French knot, Bullion Knot.	
Unit 3	2
Crochet – Single, Double & Treble	
Unit 4	3
Knitting – Basic- purl, Knit, Garter, Stocking, Rib	
Unit 5	5
Applique-Hand & machine, Quilting - Hand & machine, Patch work - Hand & machine, Smocking-Basic & Honey Comb , Macrame-any two, Braiding, Hooking, Lace and Ribbon work	
Unit 6	3
Present trend embroideries – Aari work, Zardhosi, cutwork etc.	

IN-HOUSE TRAINING

FAD506

Hrs / Week: 6

Exam Marks: 100

Internal Assessment: 50

Objectives

- To impart knowledge on working of apparel industry
- To gain practical knowledge on different departments of apparel industry

Internship Training/ Craft Documentation

Internship with any garment based industry or company for a minimum period of 30 days. A report to be submitted for evaluation.

Craft Documentation

Objectives

- In depth knowledge of the handicrafts.
- To learn research and documentation of various Indian crafts by visiting and meeting the craftsman and artisans personally.

Documentation should contain the following

- Introduction
- Aim
- Objectives
- Hypothesis
- Procedure
- Design
- Pictures of crafts
- Questionnaire for survey/ information collection.

VI Semester

B.Sc. (Fashion and apparel Design) ENTREPRENEURSHIP DEVELOPMENT

FAD 601

Total Hrs: 64

Exam Hours: 3

Exam Marks: 100

Internal Assessment: 50

Objectives

- To develop entrepreneurship skills among the students. To familiarize the students with the process and procedure of setting up new enterprises.

Unit 1

10hrs

Introduction to entrepreneurship, development of entrepreneurship, role of entrepreneurs in development of apparel and fashion industry, entrepreneurship with reference to fashion and apparel industry in India.

Unit 2

10hrs

Entrepreneurial support by state, central financial institutions, organizations. Government policies with reference to textile and apparel industry.

Unit 3

10hrs

Business planning- Starting a new venture related to apparel industry, essentials of a successful centre. Formalities of opening a firm, the status of firm, Individual proprietor/partnership/ Pvt. limited company & public Ltd company, bank formalities, term loan, working capital, project financing.

Unit 4

14hrs

Location & plant layout-factors influencing plant location, building, structure, lighting, Ventilation, material handling, availability of labour, material management and transportation. Plant layout, ergonomics safety & security to be considered while planning the layout.

Unit 5

14 hrs

Industrial sickness and remedies, tax planning, VAT, Patent Rules, Factory Act, Minimum wages, knowledge of exemptions & deductions.

Unit 6

6 hrs

Environmental considerations and social responsibilities.

References

1. The dynamics of entrepreneurial dev& management: Vasanth Desai, 6th edition Himalaya publish house.
2. Fundamentals of entrepreneurship – Hnandan. PHI learning Pvt Ltd.

3. Entrepreneurship Development & Management : M.B.ShuklaKitasMahal
4. Entrepreneurship tool kit : Harward Business School press
5. Entrepreneurship Development : Dr.S.S.KhankaS.Chand& co ltd
6. Entrepreneurship strecticgics resources 3rd edition: Monc.J..Dollinger
7. Fundamentals & Entrepreneurship: 2009: SangramKeshariMohanti PHI learning.

VI Semester
B.Sc. (Fashion and Apparel Design)
APPAREL COMPUTER AIDED DESIGN - II

FAD602A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives

- To help students to understand the fundamentals and principles of CAD/CAM/CIM.
- To provide students with the knowledge of CAD/CAM/CIM and their applications.

Unit – 1

10Hrs

CAD – Introduction, types of CAD – Textile design systems (Knitted fabrics, printed fabrics, yarn-dyed fabric), Illustration/sketchpad systems (Texture mapping: 2 ½ 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), Commercial Software Systems.

Unit – 2

8Hrs

CAM – Introduction, Categories – Computer monitoring & Control and Manufacturing support Applications – Numerical control, Group Technology, Computer generated work standards – Time standards & work Measurements.

Unit – 3

8Hrs

Computer automated process planning (CAPP) – Retrieval type & Generative type of CAPP systems and benefits of CAPP.

Unit – 4

8Hrs

CIM – Introduction, its types – Traditional and Computer Integrated Production Management systems. Inventory Management & Production scheduling -MRP-Material Requirement Planning, CRP – Capacity Requirement Planning, SFC (Shop floor control). Material handling systems, Human labour in the Manufacturing systems and its benefits. Product Data management system (PDM).

Unit – 5

4Hrs

CAQ (Computer Aided Quality Control) – Introduction, Terminologies, Inspection methods – Contact and Non – Contact inspection methods with examples and its uses.

Unit – 6

10Hrs

Applications – Fabric lay Planning, computerized cutting, sorting and Labelling, Bunling, Fabric pattern designing, modification for size & fit, Pattern Making (PDS), grading and Marker making, marker efficiency using pattern making software. Future of CAD/CAM.

References:

1. Winfred Aldrich, CAD in Clothing & Textiles, Blackwell Science, 1994.
2. CAD for Fashion Design by Renee Weiss Chase, Prentice hall Pub.
3. CAD/CAM Computer Aided Design & Manufacturing by Mikell P Groover&Mory W Zimmers. Jr, Pearson Education Pub.
4. CAD/CAM/CIM by R.Radhakrishnan, S.Subramanyan, V.Raju, New Age International Pub.
5. Fashion Design on Computers By M.kathleenColursy, Prentice Hall.

VI Semester
B.Sc. (Fashion and Apparel Design)
APPAREL COMPUTER AIDED DESIGN - II

Practicals

FAD602B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Instruction:

Following software are required for the practical's

- Fashion forecasts website
- Photoshop for collage work
- CorelDraw for Flat sketches.
- Fashion Studio for draping of garments
- Pattern making software for pattern making, grading and marker making.
- Visual Merchandising Software

Unit – 1	2
Developing Croqui figures for men, women and children using Photoshop/ Corel Draw.	
Unit – 2	3
Draping of garments on men’s, women’s & children casual, party, night, sports, office/formal wears using Fashion Studio software / Photoshop / Corel Draw.	
Unit – 3	3
Design 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 Fashion Studio software / Photoshop / Corel Draw.	
Unit – 4	3
PDS – Introduction, pattern for digitizing, Getting started in Pattern Design – Introduction to PDS (pattern design screen), File menu, Opening and saving, Managing Pieces on the screen, measure, Edit and View functions. Point & Notch Functions, line functions, Piece functions.	
Unit – 5	2
Prepare Patterns - A-Line Frock, Skirt, Shirt, Dress / Top, Shorts and Trousers	
Unit – 6	2
Introduction to grading. Grade the above patterns. Marker Making. Make marker plan for women’s Top/Skirt/ Men’s Shirt/Trouser/Kurtha.	
Unit – 7	1
Window display products / commodities for a retail shop using VM software	

VI Semester
B.Sc. (Fashion and apparel Design)
GARMENT SURFACE ORNAMENTATION

FAD603A

Total Hrs:48

Exam Hours: 3

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:	8 Hrs
Introduction to Traditional embroideries	
Unit 2	12hrs
Traditional Indian embroidery- History, types, Symbolism of embroidery of different states of India –Kutch, Kathiawar, Sindh, Phulkari, Kantha, Kashida - Material, motifs, symbolism, colour, stitches, technique, relevance.	
Unit 3	14hrs
Traditional Indian embroidery- History, types, Kasuthi, Chambarumal, Zardozi, Chikankari, - Material, motifs, symbolism, colour, stitches, technique, relevance	
Unit 4	14hrs
Tribal Embroidery- Introduction, Types –Nagaland, Manipuri, Lambadi, Thoda with their traditional influence, symbolism, techniques, fabric, stitches & colour	

References

1. Shailaja.D. Naik: Traditional Embroideries of India-APH Corp, New Delhi 1996
2. Sheila Paine: Embroidered Textile –Thames & Hudson Ltd.1990
3. UshaSrikant : Ethnic Embroideries of India
4. SavithriPandit: Indian Embroidery
5. Satheesan, Innova: Indian ethnic designs, Honesty Publishers and Distributors

6. Shrikant, Usha, Designs for a lifetime, Honesty publishers

VI Semester
B.S (Fashion & Apparel Design)
GARMENT SURFACE ORNAMENTATION

Practicals

FAD603B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1	1
Introduction to traditional Indian Embroideries	
Unit: 2	5
Traditional Indian embroidery –Kutch, Kathiwar, Sindh, Phulkari, Kantha, Kashida	
Unit: 3	5
Indian embroidery - Kasuthi, Chambarumal, Zardozi, Chikankari	
Unit: 4	5
Tribal Embroidery- Introduction, Types –Nagaland, Manipuri, Lambadi, Thoda	

VI Semester
B.Sc. (Fashion and Apparel Design)
APPAREL QUALITY MANAGEMENT

FAD604A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives:

- To acquire students with the Apparel Total Quality Management by understanding different quality Assurance practices.

Unit 1	4Hrs
Definition of Quality, Dimensions of quality, quality planning, and importance of quality.	
Unit 2	8 Hrs
TQM principles: Customer satisfaction, customer perception of quality, Intrinsic & Extrinsic quality, service quality, customer retention, continuous process improvement, Juran Trilogy, PDSA cycle, 5S, Kaizen, 6 sigma.	
Unit 3	6Hrs
Managing quality: Traditional vs Modern quality management, Quality control (QC), objectives of QC and inspection, Quality Assurance (QA), QA system,	
Unit 4	6Hrs
Importance of Quality control in Garment industry, Fabric inspection, identification of woven and processing defects, 4 point & 10 point system, IPQC, AQL standards	
Unit 5	6Hrs
Major inspection points to be verified in a final inspection for Men's Shirt & Trouser, Ladies Top, Trouser, Skirt and Kids Garment.	
Unit 6	4 Hrs
Care labels, International care labeling system, Japan/ Canada/ British care labeling system, Eco labels.	
Unit 7	10hrs
Quality system; Need for ISO 9000, Major elements in ISO 9001-2000, internal auditing, Environmental Management system, ISO 14000 series standards, Environmental Management programme, and other quality management standards of Apparel industry, AATCC, ASTM--standards, significance & importance of the same.	
Unit 8	4Hrs
Zero defects, JIT, Kaizen, Poka-yoke, and quality circle.	

References:

1. ASTM D6193 - 11 Standard Practices for Stitches and Seams.
2. Apparel manufacturing Sewn Product Analysis, By Ruth Glock, Grace Kunz.
3. Advances in apparel Production, Edited by C Fairhurst, Manchester Metropolitan University, UK, Woodhead Textiles Series No. 69.

4. Clothing Appearance and Fit, J Fan, W Yu, Hong Kong Polytechnic University, Hong Kong and L Hunter, CSIR, South Africa, Woodhead Textiles Series No. 33.
5. Sizing in Clothing, Edited by S Ashdown, Cornell University, USA, Woodhead Textiles Series No. 64.
6. Sewing Threads, Textile Progress Vol 30 No ¾, Textile Institute.
7. Apparel Sizing and Fit, Textile Progress, Vol 32 NO 2/3, Textile Institute

VI Semester
B.Sc. (Fashion and Apparel Design)
APPAREL QUALITY MANAGEMENT

Practicals

FAD604B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1

Fabric inspection (4& 10 points systems)

4

Unit 2

Designing and Inspection of Apparel care labels, contents, Dimensions and positioning of the labels.

2

Unit3

Final Inspection of Garments. Checking points and methods of checking of Men's Shirt, Trouser, Ladies Top, Trouser and Kids garment

4

Unit4

Preparation of specification sheets for Men's, Women 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.

6

Shirt Inspection Check list:

No	Location	Inspect For
1	Collar	Both points are same or not, stripe or checks is matched accurately, stitch, collar flat or not, interlining, bubble presence, collar stick placement.
2	Size	Size label is in correct place, and every part size is correct or not. Size as per the measurement chart, allowances etc.
3	Button & Button hole	Placed in right place or not, evenness of the gap between the buttons, Button stitches, finishing, matching, & to make sure button is not broken. Placement of spare button as per specification.
4	Pocket	Pocket upper edge is horizontal or not, pocket position, size, stitch, stripe or check match, flat or not.
5	Hem	Stitch, puckering, edge free from stitch.
6	Yoke & shoulder	Stitch, puckering, DNLS, matching of stripe or checks.
7	Side seam	Pattern matching, stitch, free from raw edge, puckering, straight stitch,
8	Cuffs	Stripes or checks matching, top stitch, flat or not., size of the cuff
9	Finished appearance	Trimming of edges and threads, oil marks, dirt, finger marks broken needle, stitch missing, fabric fault, colour matching, balancing of different components.
10	Buyers specifications	If the Buyer or the importer has given a separate checklist for the inspection, the inspection to be carried out to verify the sample from the bulk selected is matching to the requirement or not.

VI Semester
B.Sc. (Fashion and Apparel Design)
CLOTHING CULTURE AND COMMUNICATION

FAD605A

Total Hrs: 48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives:

- To create awareness about clothing culture
- To impart knowledge of clothing communication and fashion expression

Unit 1

4 Hrs

Understanding clothing, purpose of clothing protection, modesty, attraction and communication.

Unit 2 **6 Hrs**

Individual & dress, personal communication, personal expression, image building, psychology and sociology influence on clothing.

Unit 3 **4 Hrs**

Clothing culture and communication, men and women clothing groups, role and status of clothing.

Unit 4 **6 Hrs**

Clothing culture and communication based on conservative, labor, liberal, social, democrat, customs and martial status.

Unit 5 **4 Hrs**

Individual and dress, personal communication, personal expression, image building. Psychological and sociological influence on clothing.

Unit 6 **4 Hrs**

Fashion, fashion concepts, differences of fashion and non- fashion, recurring cycles of fashion, styles and fashion.

Unit 7 **8 Hrs**

Victorian women, their dress and social position, corset culture, fashion in 20th century. Women at war, between war and post war. Equality between men and women, sexual revolution, marriage and family, education and employment. Evolution of different types of costumes.

Unit 8 **6 Hrs**

Minis, maxis, unisex, fit woman, glamorous woman, casual and formal clothing. Fashion for all ready to wear fashion, mass marketing of fashion.

Unit 9 **4 Hrs**

Youth style and fashion, teddy boy, skins, mods, hippies, punks, taste of youth and their life style.

Reference

1. J. Anderson Black. "A History of Fashion" Orbis Publishing Ltd., USA. 1985.
2. Elizabeth Rouse, Understanding Fashion, Blackwell Science, UK, 1989.
3. T.Wilcox, The dictionary of costume, Batsford Ltd., UK.
4. Jane Ashelford, The art of dress: Clothes & Society, ISBN1500-1914, Amazon com.

VI Semester

B.Sc. (Fashion and Apparel Design)

CLOTHING CULTURE AND COMMUNICATION

Practicals

FAD605B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1:

Sketch a protective clothing for men/ women using 12 head croqui.

3

Unit 2:

Sketch clothing of royalty/ status symbol to depict modesty for men/ women using 10 head croqui.

3

Unit 3:

Sketch men and women clothing of any custom of the world using 10 head croqui.

3

Unit 4:

Sketch clothing that communicate their profession for men or women using 10 head croqui.

3

Unit 5:

Sketch different types of corset during the Victorian era.

4

VI Semester

B.Sc. (Fashion and Apparel Design)

FASHION PORTFOLIO & DESIGN COLLECTION

FAD606A

Total Hrs:48

Exam Hours: 3

Exam Marks: 70

Internal Assessment: 30

Objectives:-

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

Unit 1

Portfolio preparation, Definition, types and importance,

6 Hrs

Contents of portfolio, Different portfolio presentation skills and Material management

Unit 2 Fashion Forecasting and colour Forecasting, Use of online service for forecasting	6 Hrs
Unit 3 Clothing categories, styling, price and size ranges for men's wear, styling, price and size ranges for women's and styling, price and size ranges for kids wear	6 Hrs
Unit 4 Technical Details, Working Drawings, development of spec, flat sketch and costing	4 Hrs
Unit 5 Choosing forecast, Mood Board, client board and Colour board, Swatch Board, Illustrations and Flat sketches Production of Spec sheet and costing, Development of Logo, Hang tags, concept board	16 Hrs
Unit 6 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	6 Hrs
Unit 7 Fashion dressing – makeup- indoor, outdoor, hairstyle, stylish.	4Hrs

References-

1. J Jarnow and KG Dickenson, "Inside the Fashion Business" Prentice Hall
2. Gini Stephens Frings "Fashion- from concept to consumer" Pearson Education
3. JerliganEasterling "Fashion Merchandising And Marketing' Pearson Education
4. Polly Guerin "Creative fashion Presentations" Fairchild Publications
5. Drake/ Spooone/Greenwald "Retail fashion Promotion and Advertising"

VI Semester

B.Sc. (Fashion and apparel Design)

FASHION PORTFOLIO & DESIGN COLLECTION

Practicals

FAD606B

16 practicals of 3 hrs each

Exam- 3 hours

Exam- 35 marks

Internal Assessment- 15

Unit 1

10 hrs

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, Colour 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 presented in fashion show

Unit 2

6 hrs

Preparation of Concept boards for four seasons of three ensembles