



BENGALURU CITY UNIVERSITY

CHOICE BASED CREDIT SYSTEM

**(Semester Scheme with Multiple Entry and Exit Options for
Under Graduate Course- as per NEP 2020)**

**Syllabus for B.Sc.
Fashion and Apparel Design
(III & IV Semester)**

2022-23 onwards

Proceedings of the Board of Studies meeting in Fashion & Apparel Design (UG) held on 7th September 2022 at 11 AM in the Board Room, Department of Apparel Technology & Management, Bengaluru City University, Bengaluru.

The Chairman welcomed all the members and the agenda was taken up for discussion.

Item No. 1. Approval of the scheme and syllabus of III & IV Semesters B.Sc. (Fashion & Apparel Design) course.

The members deliberated on the scheme and syllabus of III and IV Semesters proposed by the subject expert committee as per NEP-2020. After thorough discussion and after incorporating the necessary changes the Board unanimously approved the scheme and syllabus of III & IV Semesters as per IC model proposed by Karnataka Higher Education Council, Govt. of Karnataka to be implemented from the academic year 2022-23.

Item No. 2. Approval of the scheme and syllabus of III & IV Semesters B.Sc. (Interior Design & Decoration) course.

The members deliberated on the scheme and syllabus of III and IV Semesters proposed by the subject expert committee as per NEP-2020. After thorough discussion and after incorporating the necessary changes the Board unanimously approved the scheme and syllabus of III & IV Semesters as per IC model proposed by Karnataka Higher Education Council, Govt. of Karnataka to be implemented from the academic year 2022-23.

Item No. 3. Approval of panel of Examiners for B.Sc. (Fashion & Apparel Design) for the year 2022-23

The list of panel of examiners for B.Sc. (Fashion & Apparel Design) course for the year 2022-23 was placed before the members and their suggestions were incorporated and approved.

Item No. 4. Approval of panel of Examiners for B.Sc. (Interior Design and Decoration) for the year 2022-23

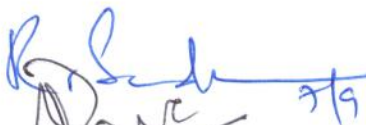
The list of panel of examiners for B.Sc. (Interior Design & Decoration) course for the year 2022-23 was placed before the members and their suggestions were incorporated and approved.

The Chairman thanked all the members for their active participation in the meeting.

Members Present:

Dr. R. Sudhakar

Chairperson



Dr. Sandhya Ravi

Member



Sri Devaraj

Member



Smt. Archana

Member



Smt. Bharathi

Member



Scheme of Examination

B.Sc. (FASHION & APPAREL DESIGN)								
SEMESTER – III								
CODE	Course	Theory/ Practical	Instruct ion Hrs/wk	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	2.5	40	60	100	3
	Language II	Theory	4	2.5	40	60	100	3
FD3.1T FD3.1P	Fashion Art & Design	Theory	3	2.5	40	60	100	3
		Practical	4	3	25	25	50	2
FD3.2T FD3.2P	Garment Detailing II	Theory	3	2.5	40	60	100	3
		Practical	4	3	25	25	50	2
FD3.3P	Apparel Computer Aided Design	Practical	6	4	50	50	100	3
FD OE-3	Open Elective	Theory	3	2.5	40	60	100	3
	SEC	Theory+ Practical	1+2	2	25	25	50	2
	PE-Sports	Practical	2	-	25	-	25	1
	H&W	Practical	2	-	25	-	25	1
					375	425	800	26

SEMESTER – IV								
CODE	Course	Theory/ Practical	Instruct ion Hrs/wk	Duration of Exam (Hrs)	Marks			CREDIT
					IA	Exam	Total	
	Language I	Theory	4	2.5	40	60	100	2
	Language II	Theory	4	2.5	40	60	100	2
FD4.1T FD4.1P	Indian Textiles & Costumes	Theory	3	2.5	40	60	100	3
		Practical	4	3	25	25	50	2
FD4.2T FD4.2P	Textile & Apparel Testing	Theory	3	2.5	40	60	100	3
		Practical	4	3	25	25	50	2
FD4.3P	Apparel Production	Practical	6	4	50	50	100	3
FD OE-4	Open Elective	Theory	3	2.5	40	60	100	3
	AECC	Theory+ Practical	1+2	2	25	25	50	2
	PE-Sports	Practical	2	-	25	-	25	1
	NCC/NSS/R&R/CA	Practical	2	-	25	-	25	1
					375	425	800	26

Open Electives

III Semester: OE-3: Fashion Makeover

IV Semester: OE-4: Textile Arts & Crafts of India

Exit option with Diploma in Fashion & Apparel Design (with a minimum of 96 Credits)

Program Title	B.Sc. Fashion and Apparel Design	Semester	Third Semester
Course Code	FD 3.1 T	Course Credits	3
Course Name	Fashion Art and Design (Theory)	Contact hours	42 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Understand the role of fashion illustration in fashion design.
- ❖ Analyse various fashion silhouettes and apply design concepts in fashion design.
- ❖ Identify various design elements to incorporate details like collars, necklines, sleeves, cuffs.
- ❖ Develop complete designer fashion figures with silhouettes and apply rendering techniques.

Course Content

Unit 1

Chapter 1

Fashion Research - Introduction, types, and source of research for design collection. Inspiration for fashion designers. Introduction to concepts and process of fashion portfolio designing.

4 Hrs

Chapter 2

Fashion Forecasting-Introduction, types. Forecasting - (Time Based) short term forecasting, long term forecasting. Techniques in forecasting- judgemental, initiative forecasting, Delphi technique, process of fashion forecasting. Colour forecasting- Introduction, importance, impact on fashion, 24 mood categorizations, fashion forecasting agencies.

5 Hrs

Chapter 3

Designing of garments based on figure types, garments to create optical illusion through elements and principles of design.

4 Hrs

Unit 2

Chapter 4

Trend Analysis- Identification/ selection of target market, trend analysis of earlier seasons to understand trend spotting methods and trend life cycles. Forecast interpretation of the current / subsequent season, developing style directions based on selected markets, trend reporting and data presentation.

Trend analysis for different seasons, trend analysis agencies.

5 Hrs

Chapter 5

Flat Sketch - Introduction, importance and application. Method of drawing flats, styling the flats, sketching flats freehand, proportion for flats for women, men, and children, croquis mixed with flats, portfolio flats, Flats for garment manufacture.

2 Hrs

Chapter 6 Specification sheet – Introduction, importance, application, types- Manual, computerized. Detailed content- Season, description, client, fabrics, trims and accessories, brand label, care label, style, size, and other details.	2 Hrs
Unit 3	
Chapter 7 Design layout- Design objectives, direction, attitude in a pose, design emphasis, stylization for Designers. Design journal pages, design journal thumbnail sketches, maximizing design impact, composition rules, direction, grouping figures, layout, or line up.	8 Hrs
Chapter 8 High end rendering techniques-Introduction, depth, and shine. Highlights- pleats, drape, transparency, volume, gathers, folds fringes, ruffles, cowls, smocking, shirring, gore and pin tucks. Changing proportions - bridal looks, trains, dress and gowns, drape, and volume. Luxury fabric rendering- feather, fur lace, embroidered fabrics.	8 Hrs
Chapter 9 Sustainable Fashion – meaning and significance; Environmental concerns related to fashion; Linear fashion and circular fashion; 4R's in sustainability – Repair, recycle, reuse, and reduce. Moving towards sustainable fashion - Eco fashion, slow fashion, fast fashion. Environmental impact of fast fashion.	4 Hrs

References	
1	Bina Abbing, "Fashion Sketchbook", Fair child Books, Canada, 7 th Edition, 2019.
2	Brockman HL, "Theory of Fashion Design" John Wiley and Sons. Inc., New York, 1990.
3	Jaeil Lee, Comitte Steen, "Technical Source Book for Designers", Bloomsbury Academic USA, 2 nd edition, 2015.
4	Patrick John Ireland, "Fashion Design Illustration - Children", Batsford, London, 1996.
5	Patrick John Ireland, "Fashion Design Illustration - Women", Batsford, London, 1996.
6	Peacock J, "Fashion Source Books", Thames and Hudson, London, 1998.
7	Stecker P, "The Fashion Design Manual", Macmillan, Australia, 1997.
8	TisiannaPaci, "Figure Drawing for Fashion Design", Pepin Press Publication, 2002.

Program Title	B.Sc. Fashion and Apparel Design	Semester	Third Semester
Course Code	FD 3.1 P	Course Credits	2
Course Name	Fashion Art and Design (Practical)	Contact hours	56 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Understand the concepts and usage of fashion research, forecasting and trend analysis in designing.
- ❖ Incorporate designing skills using high end rendering techniques.

Course Content

Unit 1	12 Hrs
Research design- Preparation of portfolio based on inspiration, mood, colour, client, texture and fabric swatch boards based on current trend.	
Unit 2	8 Hrs
Illusion in garments -Line, space texture, colour, and silhouette. Designing of various garments from the following categories - Children wear, women's wear, men's wear, evening wear, nightwear, summer wear, winter wear and party wear (2each).	
Unit 3	10 Hrs
Flat sketch - Sketching flats for women, men and children wear. Spec sheet - Preparation of spec sheet with measurement and other details for formal and casual shirt, formal and casual trousers, and frocks (Any 2).	
Unit 4	10 Hrs
Fashion sketching of advanced illustration techniques and 3 dimensional views (only hand). Foreshortening of figures, grouping of figures - thematic figure composition.	
Unit 5	8 Hrs
Design layout- Direction, attitude in a pose, emphasis, stylization for designers, design journal pages, composition direction and line up.	
Unit 6	8 Hrs
High end rendering techniques- Sketching ruffles, cascades, cowls, smocking, shirring, gathers, gores, pin tucks, dress and gown, bridal look and bridal trains, luxe fabric rendering, black fabric rendering.	

Program Title	B.Sc. Fashion and Apparel Design	Semester	Third Semester
Course Code	FD 3.2 T	Course Credits	3
Course Name	Garment Detailing II (Theory)	Contact hours	42 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Gain knowledge on industrial method of pattern making, grading and marker plan.
- ❖ Understand garment sizes and categories.
- ❖ Understand fitting techniques and pattern alteration techniques.
- ❖ Handle special fabrics for garment construction.

Course Content

Unit 1

Chapter 1

Introduction to pattern development, manual and computerized pattern development, marker making -Introduction, mini marker, marker plan development and marker efficiency. Digitizer, plotter, and scanner-application in pattern making.

3 Hrs

Chapter 2

Software- Introduction to software used in computerized pattern making, grading, and marker making, marker efficiency and computerized garment manufacturing process.

4 Hrs

Chapter 3

Pattern layout - Definitions, principles, types of layouts, importance of pattern layout. Fabric estimation - Definition, types of estimation, importance of fabric estimation.

6 Hrs

Unit 2

Chapter 4

Handling special fabrics - Introduction, types of special fabrics - stretch fabrics, knit, checks, plaids, stripes, velvet, corduroy, leather, fur, and lace. Factors to be considered while pattern making, garment construction, garment finishing, washing, care and storing.

6 Hrs

Chapter 5

Grading - Introduction, definition, grading terminologies, principles, types, sizes, grade rules and points, manual and computerized grading, importance, advantages, and disadvantages.

4 Hrs

Chapter 6

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

Pattern alteration techniques - Introduction, methods of alteration technique, importance. Pivot, slash and spread method (length, width, front, back, sleeve, shirt, skirt, trousers).

6 Hrs

Unit 3	
Chapter 7 Interlining & interfacing - Introduction, properties, types, materials, method of applications. Machinery used -Continuous fusing press, flatbed fusing press, high-frequency fusing, hand iron.	4 Hrs
Chapter 8 Foundation garments- Introduction, design, fabric, trims, and accessories. Types of fitting for men's innerwear briefs & trunk, swimwear, Women's innerwear-brassier, panties and swim wear.	5 Hrs
Chapter 9 Sportswear and Active wear- Introduction, design, fabric, garment fitting, materials used and types of sport wear for men and women. Interlinings and interfacing used for sportswear.	4 Hrs

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 J Armstrong, "Pattern Making for Fashion Design", Pearson, 5th edition, 2009.
3	Martin M Shoben, Patrick J Taylor, "Grading for the Fashion Industry", LCFS Fashion Media, 2004.
4	Natalie Bray, "Dress Fitting - Basic Principles and Practice", BSP Professional Book Publishers, 2nd edition, 1991.
5	Patric Taylor, "Grading for the Fashion Industry", Stanley Thomas Ltd., 1990.
6	Roshan Shishoo, "Textiles for Sportswear", Woodhead Publishing, 1 st edition, 2015.
7	Ruth E. Glock, Grace I. Kunz, "Apparel Manufacturing, Sewn Product Analysis", Pearson, 2018.
8	Steven George Hayes, PraburajVenkatraman, "Materials and Technology for Sportswear and Performance Apparel", CRC Press Taylor and Francis Group, 2017.
9	Winfred Aldrich, "Metric Pattern Cutting", Blackwell Science, UK, 1988.

Program Title	B.Sc. Fashion and Apparel Design	Semester	Third Semester
Course Code	FD 3.2 P	Course Credits	2
Course Name	Garment Detailing II (Practical)	Contact hours	56 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Prepare pattern layout, fabric estimation and garment construction
- ❖ Design and construct garments for men, women, and sport categories
- ❖ Choose suitable garment accessories and trims for the designed garments

Course Content

Unit 1	14 Hrs
Designing and development of women's wear - Pattern layout, fabric estimation and costing must be developed for individual garment. <ul style="list-style-type: none"> ➤ Ladies top/Blouse ➤ Salwar kameez 	
Unit 2	14 Hrs
Designing and Development of men's wear - Pattern layout, fabric estimation and costing must be developed for individual garment. <ul style="list-style-type: none"> ➤ Casual Shirt/Kurta ➤ Trouser 	
Unit 3	10 Hrs
Designing and development of night wear for women -Pattern layout, fabric estimation and costing must be developed for individual garment (one set).	
Unit 4	10 Hrs
Designing and development of night wear for men -Pattern layout, fabric estimation and costing must be developed for individual garment(one set).	
Unit 5	6 Hrs
Development of manual grading of patterns – Men's shirt, women's top.	
Unit 6	2 Hrs
Collection and development of folio on special fabrics, interlining & interfacing.	

Program Title	B.Sc. Fashion and Apparel Design	Semester	Third Semester
Course Code	FD 3.3 P	Course Credits	3
Course Name	Apparel Computer Aided Design (Practical)	Contact hours	84 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Use of designing software to develop patterns.
- ❖ Create design by using different designing tools.
- ❖ Develop patterns for various garments with PDS.

Course Content

Unit 1

Chapter 1

Introduction to computer aided design -Fundamentals, general process of design, application of computers in design, benefits of CAD and CAD in today's fashion industry.

4Hrs

Chapter 2

Introduction to fashion design software - Tools in detail, enhancing images, masking, transforms, working with layers, merging & blending layers, text effects. Creating an advertising brochure, brand label, care label designing, logo designing, development of visiting card, letterhead.

10 Hrs

Chapter 3

Painting & rendering using software, creating & manipulating fashion model drawings, gradient use for rendering & 3D effects, making collage. Applying filters, creating various boards- mood/inspiration/client/customer/colour and texture board using designing software on various themes.

12 Hrs

Unit 2

Chapter 4

Designing using software - Introduction, learning basic tools. 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. Creating fashion accessories like necklace, bracelet, anklets, earring, and head gear etc.

10 Hrs

Chapter 5

Motifs development – Symmetrical/asymmetrical, balanced/unbalanced, repeat – ½ drop, ¼ drop, ¾ drop mirror – H/V and drop reverse. Design development of saree with borders,

10 Hrs

pallu, and all over. Design development of men's kurta with neckline, cuff, and sleeve.	
Chapter 6 Draping of garments on men's, women's & children for casual, party, night, sports, office/formal wear using software.	10 Hrs
Unit 3	
Chapter 7 Design development of flat sketches with stitch specification for the following - Children – girls (A-line & yoke frock), boys (shirt & shorts), adults - women's (top, skirt, gown), men's (shirt, kurta, trouser). Create spec sheets and cost sheets for the above garments using software.	10 Hrs
Chapter 8 PDS – Introduction, 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.	10 Hrs
Chapter 9 Prepare basic pattern set, grade the patterns to smaller, larger size. Creating marker plan - A-Line frock, skirt, shirt, dress/top, shorts/trousers and kurta. (Note: Fashion studio software / Photoshop / Corel Draw/ Jindex 3D fashion/ 3D Clo etc. may be used).	8 Hrs

References	
1	Jinlian Hu, "Computer Technology for Textiles and Apparel", Woodhead Publishing, 1 st edition, 2011.
2	Kathleen Colursy M, "Fashion Design on Computers", Prentice Hall, 2004.
3	Radhakrishnan R, Subramanian S, Raju V, "CAD/CAM/CIM Computer Aided Design & Manufacturing", New Age International Publications, 2000.
4	Renee Weiss Chase, "CAD for Fashion Design", Prentice Hall Publications, 1997.
5	Stott M, "Pattern Cutting for Clothing Using CAD: How to Use Lectra Modaris Pattern Cutting Software", Woodhead Publishing, 2012.
6	Taylor P, "Computers in Fashion Industry", Heinemann Publication, 1990.
7	Voisinet Donald D. "Computer Aided Drafting & Design-Concept & Application", McGraw-Hill, 1987.
8	Winfred Aldrich, "CAD in Clothing & Textiles", Blackwell Science, 1994.

Program Title	B.Sc. Fashion and Apparel Design	Semester	Third Semester
Course Code	OE 3T	Course Credits	3
Course Name	Fashion Make Over (Theory)	Contact hours	42 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Groom and style for any occasion.
- ❖ Acquire knowledge about various garments suitable for different occasions.
- ❖ Demonstrate knowledge and skills of makeover through reflective experiential learning.
- ❖ Bring about a change in personality through makeover.

Course Content

Unit 1

Chapter 1

Fashion make over - Introduction to makeover, importance, types- clothing, makeup, accessories, and materials.

4 Hrs

Chapter 2

Introduction to different styles (chic, exotic, classic, glamorous, sexy, sophisticated, tomboy, hippies, etc.). Study of fashion appreciation- historical, contemporary and art style to understand fashion as a social phenomenon.

4 Hrs

Chapter 3

Elements of fashion and styling for women - Skirt, blouses, dresses, trousers, tops (traditional, casual, formal), men- shirts, trousers, kurta, formals, jackets (traditional, casual, formal).

6 Hrs

Unit 2

Chapter 4

Selection of clothes - Clothing for children, teenagers, youth, middle aged, adults. Types of clothes, selection according to region, season and occasion.

5 Hrs

Chapter 5

Planning clothing needs for school, college, party, sports, formal, corporate, traditional, holiday.

5 Hrs

Chapter 6

Make up- Introduction to makeup, types, based on skin type, shape of the face, eyes, nose, lips.

5 Hrs

Unit 3

Chapter 7

Make up materials- brushes, moisturizer, primer, concealer, foundation, compact. Eye

6 Hrs

makeup- Introduction, types, materials. Lip – introduction, types, and materials. Choice of colours based on skin colour, make up for corporate, traditional, casual- beach, swimming. Special occasions - Wedding, party, award ceremony. Techniques for removal of makeup, skin care and maintenance.	
Chapter 8 Accessories- Introduction to men's and women's accessories, importance, types- heads gear, footwear, handwear, handbags, scarfs, stoles, watches, jewellery	4 Hrs
Chapter 9 Styling and makeover for different occasion- Formal wear, party wear- Indian, Western wear, casual wear, beach wear, for both men and women,	3 Hrs

References	
1	Alan Flusser, “Dressing the Man- Mastering the Art of Permanent Fashion”, Harper Collins Publication, 2002.
2	Alison Freer, “How to get Dressed”, Ten speed press, Berkeley Publishers, 2015.
3	Boris Entrup, “10 Minutes Make up”, Dorling Kindersley, London, 2014.
4	Clinton Kelly, Stacy London, “Dress you're Best- The complete guide to finding the style that's right for your body”, 3 River Press Publication, 2005.
5	Danielle Griffiths, “Fashion stylist Handbook”, Laurence King Publishers 2016.
6	Kendall Farr, “The Pocket Stylist”, Penguin Group Publishers, USA Inc., 2004.
7	Rouse ‘Understanding Fashion”, Blackwell Science, UK 1989.
8	Trish McEvoy, “The Makeover of Confident Women”, Harper Wave Publishers, 2017.

Program Title	B.Sc. Fashion and Apparel Design	Semester	Fourth Semester
Course Code	FD 4.1 T	Course Credits	3
Course Name	Indian Textiles and Costumes (Theory)	Contact hours	42 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Understand history of textiles and its influence with reference to fashion clothing.
- ❖ Understand and use symbolic motifs and colour in designing traditional textiles.
- ❖ Acquaint with sketching skills of costumes for different regions of India.
- ❖ Understand the importance of Indian Costumes and use them in designing fashion designer wear.

Course Content

Unit 1

Chapter 1

History of clothing & textiles- Introduction, pre-historic reference, influence of religion, art, trade, and royalty with respect to main features and relevance to industry today. History of costumes - Introduction, beginning of costume - body decorations, body staining, tattooing, cutting and scarification, adoption of fibrous apparel, initial manufacturing of clothes. Earlier decoration of textiles, types of ornaments used in the beginning and other methods of skin decoration.

3 Hrs

Chapter 2

Textiles and costumes of India- Introduction, history, types, motifs and symbols, prehistoric textiles, and costumes - costume components for men, women and children, hair, and hair dresses.

3 Hrs

Chapter 3

Origin of clothing (Dress)-Stone age, Neolithic Age, Bronze Age, Indus Valley Civilization, Vedic age. Changing scenario of Indian costumes and influence on present day clothing.

6 Hrs

Unit 2

Chapter 4

Middle Ages - Textiles and costumes of India- Introduction, history, types, motifs and symbols, prehistoric textiles, and costumes. Costume components for men, women and children- hair, and hair dresses. Mauryan, Guptas, Satavahanas, Kushans & Mughals.

6 Hrs

Chapter 5

Hand Woven Textiles- Saris - Banaras Brocades, Baluchari, Jamdani, Dhaka Muslin, Himru, Amru, Tanchoi, Patola, Pochampalli, Paithani, Kanjeevaram, Chanderi, Maheshwari, Ilkal, Molakalmuru, Mysore silks, Kasuvu, Narayanpet, Gadwall, Mangalagiri, Uppadaand

4 Hrs

Venkatagiri. Embroidered Textiles- Kashmiri, Chikankari, phulkari, Kanta, ParsiGara, Zardozi and Ari. Shawls-Kashmir Shawls, Kullu & Kinnaur Shawls. Wraps of North-east. Floor coverings - Carpets, Durries & Rugs.	
Chapter 6 Printed and painted textiles of India- Introduction, history, types of printed, dyed, and painted textiles of India. Colours, motifs, and techniques used in printed, dyed and painted Indian traditional textiles. Printed textiles: Block prints- Bagru, Sangner, Ajrakh. Painted Textiles – Kalamkari, Warli, Madhubani.	8 Hrs
Unit 3	
Chapter 7 Resist dyed textiles - Introduction, types, design used in Bandhej & Lehariya of Rajasthan. Ikat - Patola of Gujarat, Bandha of Odisha, Pochampalli of Andhra.	4 Hrs
Chapter 8 Traditional costumes of Northern India – Jammu & Kashmir, Punjab, Himachal Pradesh, Haryana, Madhya Pradesh, Uttarakhand, and Uttar Pradesh. Traditional costumes of Eastern India – West Bengal, Bihar, Jharkhand, Arunachal Pradesh, Assam, Sikkim, Nagaland, and Manipur.	4 Hrs
Chapter 9 Traditional costumes of Southern India – Tamil Nadu, Kerala, Karnataka, and Andhra Pradesh. Traditional costumes of Western states of India – Rajasthan, Gujarat, Maharashtra, and Goa.	4 Hrs

References	
1	Gertrud Lehnert, “A History of Fashion in the 20th Century”, Konemann Publications, 2000.
2	Jamila BrijBhushan, “The Costumes and Textiles of India”, Taraporevala, Bombay, 1958.
3	John Gillow, “Traditional Indian Textiles”, Thames & Hudson Ltd., 1993.
4	Martand Singh, “Hand Crafted Indian Textiles”, Lustre Press, 2005.
5	Parul Bhatnagar, “Decorative Design History in Indian Textiles and Costumes”, Abhishek Publications, 2011.
6	Parul Bhatnagar, “Traditional Indian Costumes & Textiles”, Abhishek Publication, 2009.
7	Phyllis Tortora, Keith Eubank, “Survey of Historical Costumes, A History of Western Dress”, Bloomsbury Publishing India Private Limited, 5th edition, 2009.
8	Prakash, Raman K, Pradeesh K, “Warli Traditional Folk Art from India”, Shree Book Centre, Publication, 2016.

Program Title	B.Sc. Fashion and Apparel Design	Semester	Fourth Semester
Course Code	FD 4.1 P	Course Credits	2
Course Name	Indian Textiles and Costumes (Practical)	Contact hours	56 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Understand about evolution of Indian costumes since ancient times.
- ❖ Acquire knowledge of textiles and costumes and implement the techniques.
- ❖ Acquire skills in selecting fabrics for designing.
- ❖ Sketch and incorporate ancient designs.

Course Content

Unit 1	10 Hrs
Sketching of costumes and hairstyles of ancient India -Indus valley, Vedic period (men and women).	
Unit 2	10 Hrs
Sketching of costumes and hairstyles of Middle age- Mauryan, Kushans, Gupta and Mughal period (men and women).	
Unit 3	10 Hrs
Design and development of sarees (motif, all over, border, pallu) of any four states in India.	
Unit 4	12 Hrs
Sketching of costumes -Northern India (Jammu and Kashmir, Punjab, and Rajasthan), sketching of costumes of East India (West Bengal, Assam, Manipur) male & female.	
Unit 5	10 Hrs
Sketching of costumes -Western India (Gujarat, Maharashtra, Goa). Sketching of costumes of Southern India (Karnataka, Tamil Nadu, Kerala, Andhra Pradesh) male and female.	
Unit 6	4 Hrs
Development of a detailed report and pictures of any one textiles of India.	

Program Title	B.Sc. Fashion and Apparel Design	Semester	Fourth Semester
Course Code	FD4.2 T	Course Credits	3
Course Name	Textile & Apparel Testing (Theory)	Contact hours	42 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Understand the procedures to be followed in textile testing.
- ❖ Analyse the various tests for fibre, yarn, fabric, and garments.
- ❖ Understand the working principles of textile testing equipments.

Course Content

Unit 1

Chapter 1

Introduction to textile testing, objectives of testing. Samples for testing- Types and its importance.

3 Hrs

Chapter 2

Fibre terminologies, moisture and moisture relationship, moisture content and regain. Fibre maturity, fibre length, fibre fineness.

2 Hrs

Chapter 3

Yarn count - Direct system and indirect system. Its importance in fabric manufacturing. Yarn twist- twist direction, amount of twist, and effects of twist on fabric properties.

4 Hrs

Unit 2

Chapter 4

Fabric testing - Fabric dimensions- length, width, thickness, determination of fabric weight - GSM measurement and its application to different fabrics, cover factor, fabric shrinkage.

5 Hrs

Chapter 5

Testing of fabric strength - Terminology and definition-Tensile strength, bursting strength tear strength.

6 Hrs

Chapter 6

Fabric air permeability, stiffness, drape, crease resistance, abrasion resistance, pilling, bow & skew

9 Hrs

Unit -3	
Chapter 7 Determination of colour fastness to laundering, rubbing, light and perspiration.	5 Hrs
Chapter 8 Tensile properties of seams and stitches.	4 Hrs
Chapter 9 Garment and garment accessories testing – testing of fusible interlinings, zippers, elastic waistband, sewing threads, buttons, snap fasteners, wear testing.	4 Hrs

References	
1	Amutha K, “A Practical Guide to Textile Testing”, WPI Publishing, 1 st edition, 2016.
2	Arindam Basu, “Textile Testing”, South India Textile Research Association, Chennai, 2006.
3	Booth J E, “Principles of Textile Testing”, CBS Publishers and Distributors, New Delhi, 1996.
4	Jewel Raul, “Textile Testing”, APH Publishing house, New Delhi, 2014.
5	Patricia Dolez, Olivier Vermeersch & Valerio Izquierdo, “Advanced Characterization and Testing of Textiles”, Woodhead Publishing, 1 st edition, United Kingdom, 2017.
6	Pradeep V. Mehta, “Managing Quality in Apparel Industry”, New Age international Ltd.
7	Saville B P, “Physical Testing of Textiles”, Woodhead Publishing Ltd., Cambridge, 1999.
8	Sheraz Ahmad et al., “Advanced Textile Testing Techniques”, CRC Press Published, 1 st edition, New Delhi, 2017.

Program Title	B.Sc. Fashion and Apparel Design	Semester	Fourth Semester
Course Code	FD 4.2 P	Course Credits	2
Course Name	Textile & Apparel Testing (Practical)	Contact hours	56 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Test fabrics for various parameters
- ❖ Handle the textile testing equipment with ease.
- ❖ Understand the procedure to be followed to test fabrics.

Course Content

Unit 1	12 Hrs
Determination of geometrical properties of fabrics - Thread density, yarn count, GSM, thickness, cover factor.	
Unit 2	8 Hrs
Determination of fabric bending and drape.	
Unit 3	12 Hrs
Determination of fabric tensile strength, abrasion resistance and pilling resistance.	
Unit 4	4 Hrs
Determination of fabric crease recovery.	
Unit 5	12 Hrs
Determination of fabric shrinkage, colour fastness to washing, rubbing and light.	
Unit 6	8 Hrs
Determination of garment accessories testing - Button snap pull test, zipper test, seam strength test.	

Program Title	B.Sc. Fashion and Apparel Design	Semester	Fourth Semester
Course Code	FD 4.3 P	Course Credits	3
Course Name	Apparel Production (Practical)	Contact hours	84 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Develop patterns as per Industrial Standards.
- ❖ Use skills in designing and garment construction of men's and women's garments
- ❖ Understand and develop tech pack and spec sheet.
- ❖ Work confidently in production line of an apparel industry.

Course Content

Unit 1

Chapter 1

ASTM standards for seams & stitches, development of samples of seams and its types, Development of samples of stitch types, stitch & seam dimensions.

4 Hrs

Chapter 2

Apparel accessories & components - Fasteners, labels, support materials, decorative trims, tapes & packing materials. Preparation of folio on all apparel accessories & components used in apparel industry.

4 Hrs

Chapter 3

Analysis of style and fit for kid's men's and women's wear garments (any two brands). Develop tech pack for the analysed garments.

4 Hrs

Unit 2

Chapter 4

Design and development of men's formal/executive shirt using blocks. Development of tech pack including spec sheet, trims and support materials, construction details, bill of material (BOM), layout, fabric estimation and costing.

12Hrs

Chapter 5 Design and development of men's trouser and casual jacket using blocks. Development of flat sketch, spec sheet, tech pack, trims and support materials, construction detail, BOM, layout, fabric consumption and costing.	12 Hrs
Chapter 6 Design and development of men's ethnic wear - Sherwani suit using blocks. Development of flat sketch, spec sheet, tech pack, construction details, trims and support materials, BOM, layout, fabric consumption and costing.	12 Hrs
Unit 3	
Chapter 7 Design and development of women's formal/executive shirt using blocks. Development of flat sketch, spec sheet, tech pack, construction detail, trims and support material, BOM, layout, fabric consumption and costing.	12 Hrs
Chapter 8 Design and development of women's formal skirt using blocks. Development of flat sketch, spec sheet, tech pack, construction detail, trims and support material, BOM, layout, fabric consumption and costing.	12 Hrs
Chapter 9 Design and development of executive blazer (men/women) using blocks. Development of flat sketch, spec sheet, tech pack, construction detail, trims and support material, BOM, layout, fabric consumption and costing.	12 Hrs

References	
1	Chuter A J, "Introduction to Clothing Production Management", Wiley India Pvt. Ltd., 2nd edition, 2011.
2	Claire Shaeffer, "Sewing for the Apparel Industry", Pearson Publication, second edition, 2012.
3	Mary Ruth Shields, "Industrial Clothing Construction Methods", Fair Child Publications, 2010.
4	Paula J, Myers-Mcdevitt, "Apparel Production Management and the Technical Package", Fair Child Publications, 2010.
5	Ruth E. Glock, Grace I. Kunz, "Apparel Manufacturing Sewn Product Analysis", Pearson/Prentice Hall, 2005.
6	Teresa Gilewska "Pattern Drafting for Fashion-Advanced" Bloomsbury Publishing, 2019.

Program Title	B.Sc. Fashion and Apparel Design	Semester	Fourth Semester
Course Code	OE4 T	Course Credits	3
Course Name	Textile Art and Crafts of India (Theory)	Contact hours	42 hrs

Course Outcomes: On successful completion of the course, the student will be able to:

- ❖ Gain in-depth knowledge about Textile Art and Crafts of India.
- ❖ Develop understanding of various Indian art and crafts.
- ❖ Understand the materials and process of developing arts and crafts in India.
- ❖ Appreciate the art and craft of India.

Course Content

Unit 1

Chapter 1

Textile art & craft - Introduction, meaning, definition, types of art and craft in India.

2 Hrs

Chapter 2

Introduction to the basic concept in art & crafts. History of Indian art & craft. Factors influencing craft - social, economic, psychological, technological influence.

4 Hrs

Chapter 3

Art & crafts of Northern India – Kashmir- carpets, shawls, silverware, and woodworks. Punjab - Phulkari, jootis, durries and parandas. Haryana -pottery, weaving, Bagh, and Palm leaf work. Himachal Pradesh- paintings, leather craft metal work and stone craft.

6 Hrs

Unit 2

Chapter 4

Art & craft of Northern India- Chhattisgarh, Gonda art, bamboo craft, cowrie craft, kosa, wrought iron craft etc. Madhya Pradesh- stone carvings, folk paintings, iron craft, zari, toys and doll making,

6 Hrs

Chapter 5 Art & craft of West India – Rajasthan- blue pottery, ivory works, Meenakari, Lac works, Thewa art. Gujrat- Bead Craft, Khavda Pottery. Maharashtra- Kolhapur chappal, Warli painting, Bidiri ware and metal embossing. Goa- funky crafts of Goa. Seashell crafts, brassware, wooden lacquerware, papier mache and Azulejos or Hand painted tiles.	5 Hrs
Chapter 6 Art & Craft of North-East India-Arunachal Pradesh- colourful masks, silver objects, bamboo and cane articles, wood carving, Mishmi shawls and Sherdukpen shawls, Thangka Painting. Assam- bamboo craft, silk textiles, cane craft, water hyacinth handicraft, bell metal craft and pottery. Manipuri -wood carving, shawls and blankets and Manipuri dance doll, Kaun Grass Craft, and stone carving. Mizoram- weaving. Nagaland- baskets hats and mats.	5 Hrs
Unit 3	
Chapter 7 Art & Craft of East India- West Bengal- Terracotta, Madur, Shola, and Dash avatar cards. Odisha- fine stone carving, Pattachitra, silver filigree. Jharkhand- Jadupatua Painting, Sohrai Painting.	6 Hrs
Chapter 8 Art & Craft of South India- Karnataka Wooden -doll making, Mysore paintings, ivory carving, wood carving and sandalwood craft. Kerala -Coconut shell, coir products, metal crafts. Tamil Nadu- Tanjore paintings, Kolu dolls, mats, Toda embroidery, applique. Telangana - dhokra craft, Bidiri craft, Cheriya paintings, pearl work. Andhra Pradesh- Kondapalli toys made of softwood, golden-hued Nirmal paintings, Kalamkari paintings.	6 Hrs
Chapter 9 Current Scenario of art & crafts in India - Current scenario of art & craft in domestic and International Market. Visit to any two craft clusters.	2 Hrs

References	
1.	Aditi Rajan & Rajan MP, “Crafts of India- Handmade in India”, Mapin Publication Pvt. Ltd., 2014.
2.	Chattopadhyay K.D, “Indian Carpets and Floor Coverings”, All India Handicrafts Board, New Delhi, 1977.
3.	“Craft Traditions of India-Past, Present and Future”, NCERT Publication, 2011.
4.	Jaya Jaitley, “Crafts Atlas of India”, Niyogi Books, 2012.
5.	Marthand Singh, “Handcrafted Indian Textiles”, Roli Books, 2005.
6.	Prakash, K & Pradeesh K Raman, “Warli- Traditional Folk art from India”, English Edition Publishers, 2016.
7.	Prakash, K, “Rajasthani Folk Art - Traditional Art from India”, English Edition Publishers, 2003.

