

BENGALURU NORTH UNIVERSITY

Proceedings of the Board of Studies meeting in Fashion & Apparel Design (UG) held on 15th October 2022 at 11 AM in the Department of Apparel Technology & Management, Bangalore 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~~^{IC3} 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 2021-22

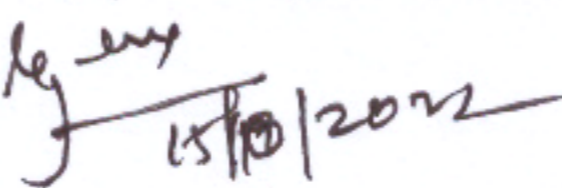
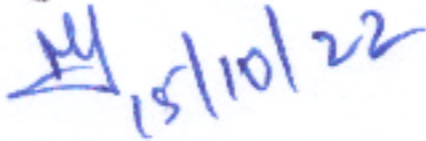
The list of panel of examiners for B.Sc. (Fashion & Apparel Design) course for the year 2022-23 was placed before the members and their suggestions were incorporated and approved.

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. HL Vijayakumar	Member	 15/10/2022
Dr. Shashikala H	Member	 15/10/22
Sri Balakrishna Shetty	Member	Approved taken online

BENGALURU NORTH UNIVERSITY

CHOICE BASED CREDIT SYSTEM (Semester Scheme with Multiple Entry and Exit Options for Under Graduate Course)

Syllabus for B.Sc. (Fashion & Apparel Design)

(III & IV Semesters)

2021-2022 onwards

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	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 /IC	Open Elective 3/ Indian Constitution	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
	NCC/NSS/R&R/ Cultural	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	3
	Language II	Theory	4	2.5	40	60	100	3
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-3 /IC	Open Elective 3/ Indian Constitution	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
	NCC/NSS/R&R/ Cultural	Practical	2	-	25	-	25	1
					375	425	800	26

Open Elective: III Semester/ IV Semester: OE-3: Fashion Makeover

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 art in 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.

5 Hrs

Trend analysis for different seasons, trend analysis agencies.

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

2 Hrs

with flats, portfolio flats, Flats for garment manufacture.	
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 (Theory)	Contact hours	42 hrs

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

- ❖ Gain knowledge on knitwear garment manufacturing along with accessories used.
- ❖ Understand the types of interlining and interfacing used in garment construction.
- ❖ 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

Cutting and sewing machineries for knitted garment manufacturing, concept of cutting - types of cutting machines – its applications - advantage and disadvantage. Introduction to sewing machines - classification of sewing machine and its applications, parts of sewing machine, machine bed and its types - feed mechanism and its types.

6 Hrs

Chapter 3

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

4 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.

6 Hrs

Chapter 5

Interlining & interfacing - Introduction, properties, types, materials, method of applications.

5 Hrs

Chapter 6

Machinery used for interlining and interfacing -Continuous fusing press, flatbed fusing press, high-frequency fusing, hand iron. Collection and development of folio on interlining & interfacing.

4 Hrs

Unit 3	
Chapter 7 Intimate apparels – Definition, classification, materials - fiber, fabric and accessories, physical and physiological requirements of intimate apparels. Sewing of intimate apparels - seams, stitches, machines.	4 Hrs
Chapter 8 Design analysis, measurements, pattern drafting of women’s and men’s intimate apparel Women’s Intimate wear - petticoats, camisoles, tube top and bikini Men’s Inner wear- Vest, boy shorts and boxer briefs	6 Hrs
Chapter 9 Sportswear and Active wear- Introduction, design, fabric, garment fitting, materials used and types of sportswear for men and women.	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, “Patternmaking 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 (Practical)	Contact hours	56 hrs

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

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

Course Content

Unit 1	12 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"> <input type="checkbox"/> Designer Blouse <input type="checkbox"/> Salwar kameez <input type="checkbox"/> Night wear 	
Unit 2	14 Hrs
Designing and development of Men's wear -Pattern layout, fabric estimation and costing must be developed for individual garment (one set). <ul style="list-style-type: none"> <input type="checkbox"/> Waistcoat <input type="checkbox"/> Blazer <input type="checkbox"/> Night suit (Pajamas set) 	
Unit 3	14 Hrs
Designing and Development of Knitwear Design - Pattern layout, fabric estimation and costing must be developed for individual garment. <ul style="list-style-type: none"> <input type="checkbox"/> V-Neck T shirt <input type="checkbox"/> Sweat Shirt <input type="checkbox"/> Track Pants 	
Unit 4	12 Hrs
Development of Intimate Garments – Vest and Boy Shorts Tube top, Bikini, Petticoat	
Unit 5	4 Hrs
Collection and development of folio on special fabrics. Design and develop a costume using a theme.	

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, Introduction to computers and interfaces, general process of design, application of computers in design, benefits of CAD and CAD in today's fashion industry.

4Hrs

Chapter 2

Introduction to photoshop- Tools, Editing images using different methods- Selection, Scaling, enhancing images, Effects, working with layers, masking, Filters, Colour Correction.

Introduction to Illustrator- Tools in detail, 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

Create fashion accessories like necklace, bracelet, anklets, earring, and head gear etc. Using basic shapes, transformations, duplicate, cloning. Applying fill, outlines, special effects, shaping objects, creating custom shapes using basic shapes and other drawing tools, working with the text, effects and shaping objects.

10 Hrs

<p>Chapter 5</p> <p>Motifs development – Symmetrical motif using Symmetrical Drawing in illustrator and an asymmetrical motif.</p> <p>Pattern development – Block / Drop /symmetric / Balanced Repeat, Half – Brick/Brick/ asymmetric repeat, ½ drop/ ¼ drop, ¾ drop, , mirror – H/V and drop reverse, ogee</p> <p>Design development of saree with borders, pallu, and all over. Design development of men’s kurta with neckline, cuff, and sleeve.</p>	10 Hrs
<p>Chapter 6</p> <p>Draping of garments on men’s, women’s & children for casual / party / night / sports /office / formal wear using software.</p>	10 Hrs
Unit 3	
<p>Chapter 7</p> <p>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.</p>	10 Hrs
<p>Chapter 8</p> <p>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.</p>	10 Hrs
<p>Chapter 9</p> <p>Prepare a basic pattern set, grade the patterns to smaller, larger sizes. Creating marker plan - A-Line frock, skirt, shirt, dress/top, shorts/trousers .</p> <p>(Note: Fashion studio software / Photoshop /Illustrator / Corel Draw/ Jindex 3D fashion/ 3D Clo etc. may be used).</p>	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 LectraModaris Pattern Cutting Software”, Woodhead Publishing, 2012.
6	Taylor P, “Computers in Fashion Industry”, Heinemann Publication, 1990.

References

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|---|---|
| 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	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. Origin of Costumes & introduction to Ancient world costumes & textiles – Egyptian, Greek, Gothic, Renaissance and Victorian, Corsets, farthingales, hoop skirts, breeches, Doublets, body modification, adoption of fibrous apparel, Earlier decoration of textiles, types of ornaments used in the beginning. symbolism of motifs and colour in textiles

6 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. 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.

2 Hrs

Chapter 3

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, Satavahana, Kushans, Guptas & Mughals.

6 Hrs

Unit 2

Chapter 4

Hand Woven Textiles- Saris - Banaras Brocades, Baluchari, Jamdani, Dhaka Muslin, Patola, Pochampalli, Paithani, Kanjeevaram, Chanderi, Maheshwari, Ilkal, Mysore silks, Gadwal, and Venkatagiri.

4 Hrs

Chapter 5

4 Hrs

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, Sanganer, Ajrakh. Painted Textiles – Kalamkari, Warli, Madhubani.	
Chapter 6 Resist dyed textiles - Introduction, types, design used in Bandhej&Lehariya of Rajasthan. Ikat - Patola of Gujarat, Bandha of Odisha, Pochampalli of Andhra.	4Hrs
Unit 3	
Chapter 7 Traditional costumes of Northern India –Punjab, Himachal Pradesh, Madhya Pradesh, and Uttar Pradesh.	4 Hrs
Chapter 8 Traditional costumes of Eastern India – West Bengal, Bihar, Assam, Sikkim, Nagaland, and Manipur.	6 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.	6 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 the 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
Inspirations from Indus Valley & Vedic period from textiles, jewellery & costume. Taking details and incorporating into contemporary apparel design.	
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 equipment.

Course Content

Unit 1

Chapter 1

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

3 Hrs

Chapter 2

Fibre terminologies, moisture content (MC) and regain (MR). Relation between MC, MR and relative humidity (RH). MC and MR of different fibers. 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, types of twist, amount of twist, effects of twist on fabric properties and importance of twist. Measurement of twist.

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 – Importance, 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 different types of fibers and their comparison - natural, synthetic and regenerated.	4 Hrs
Chapter 9 Garment and garment accessories testing – testing of fusible interlinings, zippers, elastic waistband, satin tape, 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 - plastic button, metal 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 packs and spec sheets.
- ❖ Work confidently in the 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 portfolio on all apparel accessories & components used in the 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 a tech pack for the analysed garments.

4 Hrs

Unit 2

Chapter 4

Design and development of men's formal/executive shirts 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

<p>Chapter 5 Design and development of men's trousers and casual jackets using blocks. Development of flat sketch, spec sheet, tech pack, trims and support materials, construction detail, BOM, layout, fabric consumption and costing.</p>	12 Hrs
<p>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.</p>	12 Hrs
Unit 3	
<p>Chapter 7 Design and development of women's formal/executive shirts using blocks. Development of flat sketch, spec sheet, tech pack, construction detail, trims and support material, BOM, layout, fabric consumption and costing.</p>	12 Hrs
<p>Chapter 8 Design and development of women's formal skirts using blocks. Development of flat sketch, spec sheet, tech pack, construction detail, trims and support material, BOM, layout, fabric consumption and costing.</p>	12 Hrs
<p>Chapter 9 Design and development of executive blazers (men/women) using blocks. Development of flat sketch, spec sheet, tech pack, construction detail, trims and support material, BOM, layout, fabric consumption and costing.</p>	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.

OPEN ELECTIVE			
Program Title	B.Sc. Fashion and Apparel Design	Semester	Third Semester / Fourth 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 makeover - 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 - skirts, 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	
<p>Chapter 7 Make up materials- brushes, moisturizer, primer, concealer, foundation, compact. Eye 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.</p>	6 Hrs
<p>Chapter 8 Accessories- Introduction to men’s and women’s accessories, importance, types- heads gear, footwear, handwear, handbags, scarfs, stoles, watches, jewellery</p>	4 Hrs
<p>Chapter 9 Styling and makeover for different occasion- Formal wear, party wear- Indian, Western wear, casual wear, beach wear, for both men and women,</p>	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.