

PG Diploma in Apparel Merchandising and Management

Syllabus

AFFILIATED COLLEGES

Program Code: ***

2021 – 2022 onwards

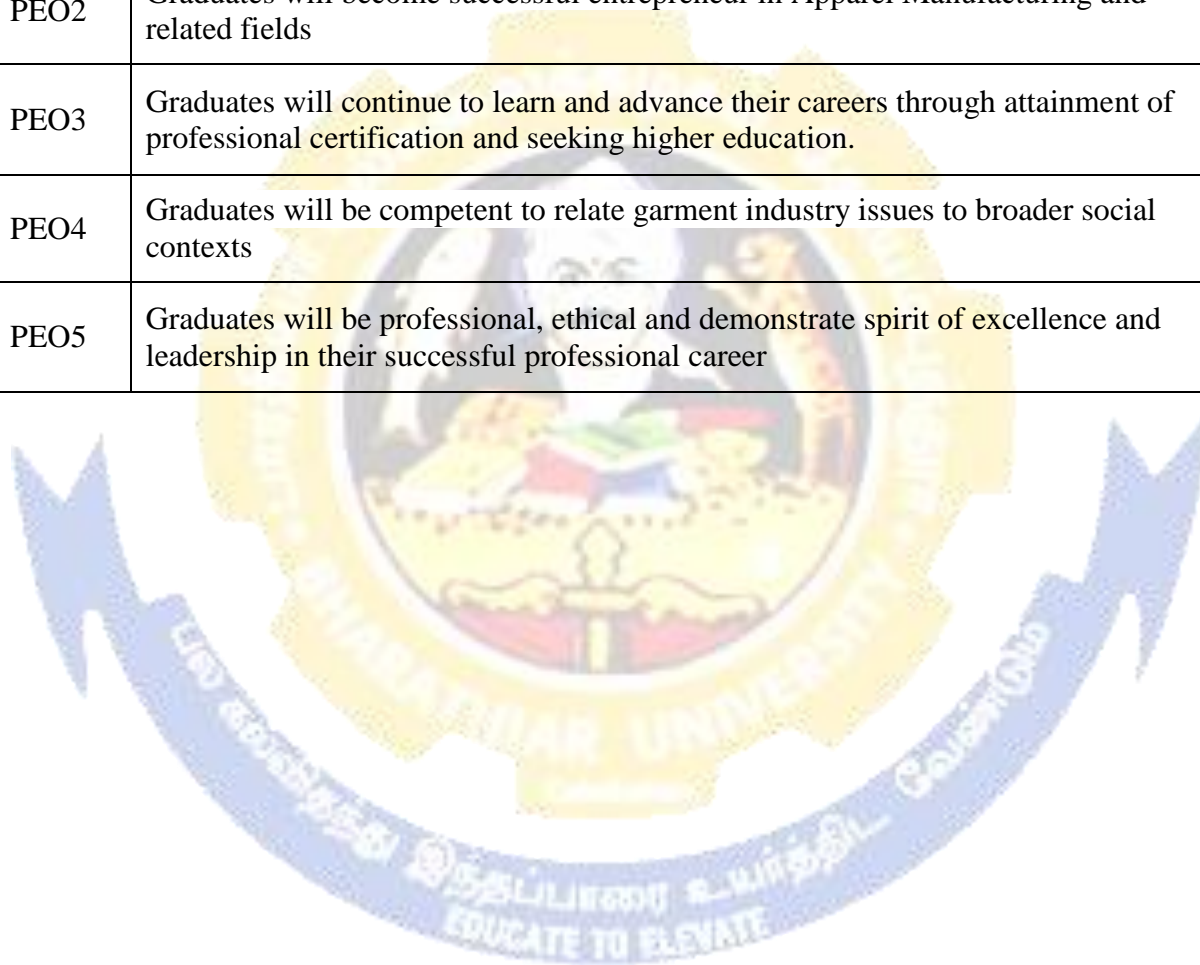


BHARATHIAR UNIVERSITY

(A State University, Accredited with “A” Grade by NAAC,
Ranked 13th among Indian Universities by MHRD-NIRF,
World Ranking : Times - 801-1000, Shanghai - 901-1000, URAP - 982)

Coimbatore - 641 046, Tamil Nadu, India

Program Educational Objectives (PEOs)	
The PG Diploma in Apparel Merchandising and Management program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	Graduates will have successful professional careers in Apparel Industry
PEO2	Graduates will become successful entrepreneur in Apparel Manufacturing and related fields
PEO3	Graduates will continue to learn and advance their careers through attainment of professional certification and seeking higher education.
PEO4	Graduates will be competent to relate garment industry issues to broader social contexts
PEO5	Graduates will be professional, ethical and demonstrate spirit of excellence and leadership in their successful professional career



Program Specific Outcomes (PSOs)	
After the successful completion of PG Diploma in Apparel Merchandising & Management program, the students are expected to	
PSO1	To be able to understand the buyer requirements and expectations in terms of domestic and international market trends and quality standards,
PSO2	Demonstrate the knowledge and understanding of the processes and techniques related to apparel manufacturing
PSO3	Apply domain knowledge and problem solving skills to solve real time problems in apparel production
PSO4	Develop new designs and products for apparel and technical applications
PSO5	Have Entrepreneurship and Life Skills to start their own businesses



Program Outcomes (POs)	
On successful completion of the PG Diploma in Apparel Merchandising& Management	
PO1	Students will be able to understand the principles and techniques of the processes of apparel manufacturing
PO2	To be able to identify, analyze the quality and production issues in apparel manufacturing and to design an optimal solution using the tools and techniques
PO3	Demonstrate the knowledge and skills of production process in creating new designs and products
PO4	Demonstrate knowledge and understanding of the management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO5	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings and to Communicate effectively with the community and with society
PO6	Able to demonstrate technical, managerial and entrepreneurial skills in setting up an production unit
PO7	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

BHARATHIAR UNIVERSITY: COIMBATORE 641 046
PG Diploma in Apparel Merchandising and Management

(For the students admitted during the academic year 2021 – 22 onwards)

Course Code	Title of the Course	Credits	Hours			Maximum Marks		
			Theory	Practical	Exam	CIA	CEE	Total
FIRST SEMESTER								
13A	Core Paper I - Textile Fibres and Yarns	3	3	-	3	30	45	75
13B	Core Paper II - Fabric Science	3	3	-	3	30	45	75
13C	Core Paper III - Textile Coloration and Finishing	3	3	-	3	30	45	75
13D	Core Paper IV - Clothing Construction	3	3	-	3	30	45	75
13E	Core Paper V - Personnel Management and Industrial Relations	3	3	-	3	30	45	75
13P	Core Practical I - Fabric Analysis	2	-	4	3	25	25	50
13Q	Core Practical II - Stitches and Seams	2	-	4	3	25	25	50
17V	Internship Training	2	-	7	-	25	25*	50
Total		21	15	15	-	225	300	525
SECOND SEMESTER								
23A	Core Paper VI - Apparel Costing and Documentation	3	3	-	3	30	45	75
23B	Core Paper VII - Apparel Merchandising	3	3	-	3	30	45	75
23C	Core Paper VIII - Apparel Quality Management	3	3	-	3	30	45	75
23P	Core Practical III - Textile Testing	2	-	4	3	25	25	50
23Q	Core Practical IV - Pattern Making and Garment Construction	2	-	5	4	25	25	50
23R	Core Practical V - Computer Aided Pattern Making	2	-	4	3	25	25	50
27V	Project Work	4	-	8	-	50	50*	100
Total		19	9	21	-	215	260	475
Grand Total		40	-	-	-			1000
ONLINE COURSES								

CIA – Continuous Internal Assessment

CEE – Comprehensive External Examination

Mark Division for Internship and Project

Paper title	Total Marks	CIA	CEE	
			Evaluation	Viva-voce
Internship Training	50	25	15	10
Project / Thesis	100	50	30	20



First Semester

Course code	13A	TEXTILE FIBRES AND YARNS		L	T	P	C
Core				3	-	-	3
Pre-requisite	Basic Knowledge of Science		Syllabus Version	2021-2022			
Course Objectives:							
The main objectives of this course are to:							
<ol style="list-style-type: none"> 1. Enable the students to learn about the various textile fibres used in the apparel industry and their characteristics 2. Describe about yarn manufacturing process and its types 3. Elaborate about the various yarn defects, yarn quality criteria 							
Expected Course Outcomes:							
On the successful completion of the course, student will be able to:							
1	Differentiate the characteristics various natural fibres						K3
2	Differentiate the production of semi synthetic fibres and their characteristics						K2
3	Understand about the production of synthetic fibres and their characteristics						K2
4	Understand the methods of yarn production by different systems and compare the merits and demerits						K3
5	Understand the causes for various yarn defects; apply knowledge on yarn quality requirements for various end uses.						K3
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create							
Unit:1	Natural Fibres					12 hours	
Introduction to Textile fibers and their Classification – General properties. Brief study about Cotton, flax, silk and wool fibres, their properties and end uses. Methods of Filament Spinning.							
Unit:2	Semi Synthetic Fibres					12 hours	
Viscose rayon process flow. Brief study about Acetate fibre, Modal, Lyocell and bamboo fibres, their properties and End uses.							
Unit:3	Synthetic Fibres					12 hours	
Introduction to Polymer and Polymerization and its types. Brief study about polyamide, polyester, polyacrylic, and spandex, their properties and End uses. Texturization process and its objectives, Methods of Texturization.							
Unit:4	Yarn Manufacturing					12 hours	
Cotton Yarn Production sequence and objectives - Comparison of carded and combed yarn - Yarn numbering systems. Brief study about OE and Compact Spinning. Influence of fibre properties on yarn quality. Melange Yarn - Blended yarn - Double yarn							
Unit:5	Testing of Fibres and Yarns					10 hours	
Various Yarn and Package defects and their causes. Fibre identification Tests. Yarn quality assessment; count, strength twist, hairiness and unevenness.							
Unit:6	Contemporary Issues					2 hours	
Expert lectures, online seminars - webinars							
						Total Lecture hours	60 hours

Text Books	
1	A text book of fibre science and technology, Mishra, S.P,Newage International Publishers, 2005,
2	Textile yarns, Technology, Structure and Applications, Goswami.B.C., Martindale.J.G, Scardino.F.L, Wiley India Pvt, Ltd, 2010.
Reference Books	
1	Hand book of textile fibres Volume II, Fifth edition, Gordon Cook, J, Wood head publishing Ltd,1984.
2	Chemistry of the textiles industry, Carr, C.M,Blackie Academic and Professional, 1995.
3	Man-made fibres, Moncrieff,Wiley, 1957.
4	Spun yarn technology, Eric Oxtoby, Butterworths, 1987.
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	http://textilefashionstudy.com
2	https://fashion2apparel.blogspot.com/2017/07/classification-loom.html
3	https://textilelearner.blogspot.com/
4	https://www.inda.org/about-nonwovens/
Course Designed By: Dr R Sheela John and Dr P P Gopalakrishnan,	

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	M	M
CO2	S	S	M	L	L	M	M
CO3	S	S	M	L	L	M	M
CO4	S	S	M	L	L	M	M
CO5	S	S	M	L	L	M	M

*S-Strong; M-Medium; L-Low

Course code	13B	FABRIC SCIENCE		L	T	P	C
Core				3	-	-	3
Pre-requisite		Basic Knowledge of Science		Syllabus Version		2021-2022	
Course Objectives:							
The main objectives of this course are to:							
1. Learn the basics of weaving and knitting processes							
2. To compare characteristics of various woven structures and understand the differences between them							
3. To compare characteristics of weft and warp knitted structures and understand their applications in apparel industry							
Expected Course Outcomes:							
On the successful completion of the course, student will be able to:							
1	Understand the principles of weaving, its preparatory processes, machines used and types of fabric structures produced.						K2
2	Learn the principle of knitting process and various elements of weft knitting machine						K4
3	Differentiate the characteristics of basic knit fabric structures						K2
4	Learn about jacquard and Fleece structures, flat and warp knitting techniques						K3
5	analyze the fabric particulars and various tests done for assessing fabric performance						K2
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create							
Unit:1	Preparatory Process for Weaving					12 hours	
Classification of fabric forming methods – Weaving preparatory processes and its objectives – Warping, Sizing and Drawing – in. Passage of material through a plain power loom – Primary, secondary and auxiliary motions of a loom. Classification of Looms. Advantages of shuttle less looms. Introduction to weaves – Plain, twill, satin weaves and derivatives.							
Unit:2	Basics of Knitting					12 hours	
Comparison of weaving and knitting - Principles of weft and warp knitting – Terms and definitions of weft knitting. Knitting machine elements and description Classification of knitting machines - Yarn passage diagram of a circular knitting machine							
Unit:3	Weft Knit Structures					12 hours	
Knitting cycle of latch needle with sinker. Description of circular Rib and Interlock knitting machine –Characteristics of basic weft knit structures –Ornamentation of basic weft knit structures - Knit, tuck and miss stitch formation and properties - Representation of weft knit stitches.							
Unit:4	Flat Knitting and Warp Knitting					12 hours	
Jacquard Knitting - Auto stripes - Terry knitting. Flat Knitting – Yarn passage diagram of a flat knitting machine. Introduction to warp knitting – Warp knitting terminologies. Introduction to non woven							
Unit:5	Quality Parameters					10 hours	
Woven fabric particulars- thread density, Crimp, cover factor. Knitted fabric particulars; stitch density, stitch length, Tightness factor, Testing of fabrics for GSM, Drapability, bursting strength,							

Crease recovery, dimensional stability, bowing and spirality		
Unit:6	Contemporary Issues	2 hours
Expert lectures, online seminars – webinars		
Total Lecture hours		60 hours
Text Books		
1	Knitting Technology, D.B.Ajgaonkar, Universal Publishing Corporation, Mumbai, 2006.	
2	Handbook of weaving, SabitAdanur, SRC Press, 2009.	
Reference Books		
1	Knitting Technology, Second Edition, David Spencer, Wood Head Publishing Ltd.England, 1989.	
2	Flat Knitting,Samuel Razz, Meisenbach Bamberg (1993).	
3	Fabric Forming Systems, Peter Schwartz, Trevor Rhodes and Mansour Mohamed, Mahajan Publishers, Ahmadabad, 1996.	
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1	https://nptel.ac.in/courses/116/102/116102008/	
2	https://www.fibre2fashion.com/industry-article/8087/weft-knitted-fabrics-and-derivatives	
3	https://textechdip.wordpress.com/contents/welcome-to-knitting/	
4	https://textilelearner.blogspot.com/2013/03/quality-parameters-of-woven-knitted-and.html	
Course Designed By: Dr R Sheela John and Dr K Sangeetha		

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	M	M
CO2	S	S	M	L	L	M	M
CO3	S	S	M	L	L	M	M
CO4	S	S	M	L	L	M	M
CO5	S	S	M	L	L	M	M

*S-Strong; M-Medium; L-Low

Course code	13C	TEXTILE COLORATION AND FINISHING	L	T	P	C
Core			3	-	-	3
Pre-requisite	Basic Knowledge of Science		Syllabus Version	2021-2022		
Course Objectives:						
The main objectives of this course are to:						
1. Describe basics of preparatory processes for textile colouration						
2. Describe the selection of dyes and machines for dyeing and printing of various fibres						
3. Elaborate about the various types of finishing available for weft knitted structures						
Expected Course Outcomes:						
On the successful completion of the course, student will be able to:						
1	Define the process route for various textile materials					K3
2	Define the selection of machine and dyes for dyeing process					K2
3	Able to select the right method and technique for printing					K3
4	Able to identify the fabrics with various finished effects					K3
5	Understand the importance of ETP and methods of colour fastness assessment					K2
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create						
Unit:1	Preparatory Processes					12 hours
Water: water hardness – types - softening process: ion exchange –Lime Soda Process. Preparatory process sequence for Woven and Knitted fabrics and its objectives. Types of singeing and Desizing. Scouring of coloured fabrics. Bleaching agents: hypochlorite and hydrogen peroxide bleaching – Fluorescent brightening agents. Mercerization						
Unit:2	Dyeing					12 hours
Classification of dyes. Dye bath Auxiliary chemicals. Dyeing of blended textiles. Features and working principles of processing machines: Cheese, jigger, jet and soft-over-flow machines. Padding mangles. Garment Dyeing Machines.						
Unit:3	Printing					12 hours
Differences between dyeing and Printing. Various methods of printing. Screen preparation. Styles of printing – direct, resist, discharge. Print paste ingredients. After treatments for printed textiles. Garment printing techniques.						
Unit:4	Finishing					12 hours
Classification of finishing. Raising and Shearing: Compacting. Calendaring. Heat Setting. Types of garment washes: Stone Wash, Bio-Polishing, Acid Wash. Sand Blasting.						
Unit:5	Machines and Effluent Treatment.					10 hours
Application of enzymes in textile processing. Treatment of Textile Effluents. Eco Labels and Norms. Introduction to computer colour matching system. Testing of Colour fastness to washing, rubbing, perspiration and light.						
Unit:6	Contemporary Issues					2 hours
Expert lectures, online seminars - webinars						

	Total Lecture hours	60 hours
Text Books		
1	Dyeing and chemical technology of textile fibres, E.R.Trotman, Charles Griffin & Co, 1964.	
2	Textile Coloration and Finishing, Warren.S.Perkins, Carolina Academic Press, Durham, North Carolina, 1996.	
Reference Books		
1.	Technology of Bleaching and Dyeing of Textile Fibres Vol.1, Part-I, 1979, Mahajan Book Publishers, - Chakravarthy RR And Trivedi S.S	
2.	The Bleaching and Dyeing of Cotton Material, Prayag R.S, Weaver's Service Centre, 1983.	
3.	Chemical Processing of Synthetic Fibres and Blends, Datye K.V and Vaidhay A.A John Wiley and Sons, New York, 1982.	
4.	Processing of Manmade Fibres, Usenko V, MIR Publishers, Moscow, 1975.	
5.	Colour for Textiles: A User's Handbook, Wilfred Ingamells, Society of Dyers and Colourists, 1993.	
6.	Cellulosics Dyeing, John Shore, Society of Dyers and Colourists, 1995.	
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1	https://www.britannica.com/topic/textile/Textile-finishing-processes	
2	https://nptel.ac.in/content/storage2/courses/116104045/lecture1.pdf	
3	https://www.textileschool.com/391/textile-printing/	
Course Designed By: Dr R Sheela John and Mr G Selvakumar		

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	M	M
CO2	S	S	M	L	L	M	M
CO3	S	S	M	L	L	M	M
CO4	S	S	M	L	L	M	M
CO5	S	S	M	L	L	M	M

*S-Strong; M-Medium; L-Low

Course code	13D	CLOTHING CONSTRUCTION		L	T	P	C	
Core				3	-	-	3	
Pre-requisite		Basic Knowledge of Science		Syllabus Version		2021-2022		
Course Objectives:								
The main objectives of this course are to:								
<ol style="list-style-type: none"> 1. Learn the basics of garment manufacturing processes 2. Discuss about the various types sewing machines and its applications in sewing process. 3. Describe about the types of stitches and seams in sewing and types of garment finishing 								
Expected Course Outcomes:								
On the successful completion of the course, student will be able to:								
1	Decide the use of suitable spreading and cutting in apparel production						K2	
2	Differentiate the applications of different types of sewing machines						K2	
3	Analyze the different types of stitches and seams in garments						K4	
4	Analyze the applications of different types of folder and attachments in sewing machine						K4	
5	Understand the ironing and types of packaging methods						K2	
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create								
Unit:1		Spreading and Cutting				12 hours		
Garment manufacturing process flow. Pattern making and grading- Manual and CAD – Marker Making. Fabric Spreading process – types of lay and machines used. Fabric Cutting process - Types of cutting machines and its application – band knife, straight knife, round knife and Die cutting machines. Computerized cutting machines. Auxiliary cutting devices – Drills, notches. Stickering, bundling and checking.								
Unit:2		Sewing Machines				12 hours		
Classification of sewing machines and applications. Lockstitch machine - function and its types - Features of advanced lock stitch machines. Over lock machine - Function and its functions. Flat lock machines. Feeding mechanism, importance and Its types. Needle mechanism. Stitching mechanism. Bar tacking machine. Picoting Machine.								
Unit:3		Classification of Stitches				12 hours		
Concept of Stitch and its classification- Federal standard and British standards. Concept of stitch geometry. Detailed study on Stitch classes and its function – advantages and disadvantages. Seams and its types.								
Unit:4		Machine Elements				12 hours		
Requirements – Guides – Types (edge and curve guide) - Compensating foot - Specialized presser foot – Stitching jig- hem folders - Slack feeding and elastication – Cutting aids (threads, elastic and tapes) - Stacker. Simple automatics - Button hole – Button sew – Label sewers. Types and parts of machine needles – Needle sizes - Details of stand, table and motor for sewing machines.								
Unit:5		Garment Finishing Machines				10 hours		
Introduction to various machines for garment finishing – Fusing – Sucking – Ironing - Packing. Purpose of pressing –Categories of pressing- The means of pressing-pressing equipment and								

methods-Iron and steam presses. Packaging- Types of package forms-Types of packaging materials- Quality specification of packaging materials-Merchandising packaging – Shipment. Packaging - Selection of package design.		
Unit:6	Contemporary Issues	2 hours
Expert lectures, online seminars - webinars		
Total Lecture hours		60 hours
Text Books		
1	The Technology of Clothing Manufacture, Harold Carr and Barbara Latham, Blackwell Science Ltd, England, 1994.	
2	Introduction to Clothing Manufacture, Gerry Cooklin, Blackwell Science Ltd, England, 1991.	
Reference Books		
1	Clothing Construction and Wardrobe Planning, Dora.S.Lewis, Mabel Goode Bowers and Marietta Kettunen, The Macmillan Company: New York (1955).	
2	Knitted Clothing Technology, Terry Bracken bury, Blackwell Science Ltd, England, 1992.	
3	Apparel Manufacturing, Ruth. E, Glock and Grace.I.Kunz, Pearson Education, New Delhi, 1995.	
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1	https://textilelearner.blogspot.com/2015/08/different-types-and-classification-of.html	
2	https://clothingindustry.blogspot.com/2017/12/pressing-garment-industry.html	
Course Designed By: Dr R Sheela John and Mrs R Ramathilagam		

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	M	M
CO2	S	S	M	L	L	M	M
CO3	S	S	M	L	L	M	M
CO4	S	S	M	L	L	M	M
CO5	S	S	M	L	L	M	M

*S-Strong; M-Medium; L-Low

Course code	13E	PERSONNEL MANAGEMENT AND INDUSTRIAL RELATIONS	L	T	P	C
Core				3	-	-
Pre-requisite		Knowledge on the functioning of an Industry	Syllabus Version	2021-2022		
Course Objectives:						
The main objectives of this course are to:						
1. Instruct about roles and responsibilities of merchandiser						
2. Describe about planning and programming in execution of an order						
3. Describe about types of approvals to be given						
Expected Course Outcomes:						
On the successful completion of the course, student will be able to:						
1	Describe the concept of Personnel Management					K2
2	Analyse the role of Human Resource Management					K2
3	Relate to the concept of wage and salary fixation					K4
4	Discover the importance of labour welfare measures					K3
5	Explain the methods of prevention and settlements of Industrial disputes					K2
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create						
Unit:1	Introduction to Personnel Management					9 hours
Introduction: Definition – Functions – Objectives – Role of personnel management in industry. Principles of good personnel policy. Organizing the personnel function. Leadership – Motivation – Job satisfaction and Morale – communication – Control process.						
Unit:2	Human Resource Management					9 hours
Human resource management: Objectives and planning of manpower - Job analysis, job description, and job specification. Recruitment and selection. Training and development. Performance appraisal. Career planning and job change.						
Unit:3	Job evaluation					9 hours
Job evaluation, Employee compensation – Wages and salary – Incentives, DA, Bonus and wage differentials. Wage acts and policies.						
Unit:4	Labour Welfare					9 hours
Labour welfare – Safety Engineering – Accidents – Good housekeeping – Welfare acts: Welfare funds – Voluntary Benefits – Insurance – Provident Fund – Gratuity – Maternity benefits - ILO.						
Unit:5	Industrial Relations					7 hours
Industrial Relations: Meaning – approaches – Significance. Trade Unions – Collective bargaining. Grievance and employee discipline. Workers Participation in management. Union – management Relations. Industrial Disputes: Forms of disputes – Methods of prevention and settlements of Industrial disputes – Authorities for settlement.						
Unit:6	Contemporary Issues					2 hours
Expert lectures, online seminars - webinars						
					Total Lecture hours	45 hours

Text Books	
1	Personnel Management and Industrial Relations, P.C. Tripathi, Sultan Chand & Sons, 2013.
2	Personnel Management, Dessler, Prentice-Hall, 1988.
Reference Books	
1	Management and Human Resources, Venkataraman C.S and Srivastava B.K, Personnel Tata McGraw Hill, 1991.
2	Industrial Relations, Arun Monappa, Tata McGraw Hill, 1987.
3	Personnel Management and Industrial Relations, Dale Yodder and. Paul D Standohar, Sterling Publishers, 1990.
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	https://www.iedunote.com/personnel-management
2	http://www.whatishumanresource.com/human-resource-management
Course Designed By: Dr R Sheela John and Dr V Maheswari	

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	L	M	M	S	S	S	M
CO2	L	M	M	S	S	S	M
CO3	L	M	M	S	S	S	M
CO4	L	M	M	S	S	S	M
CO5	L	M	M	S	S	S	M

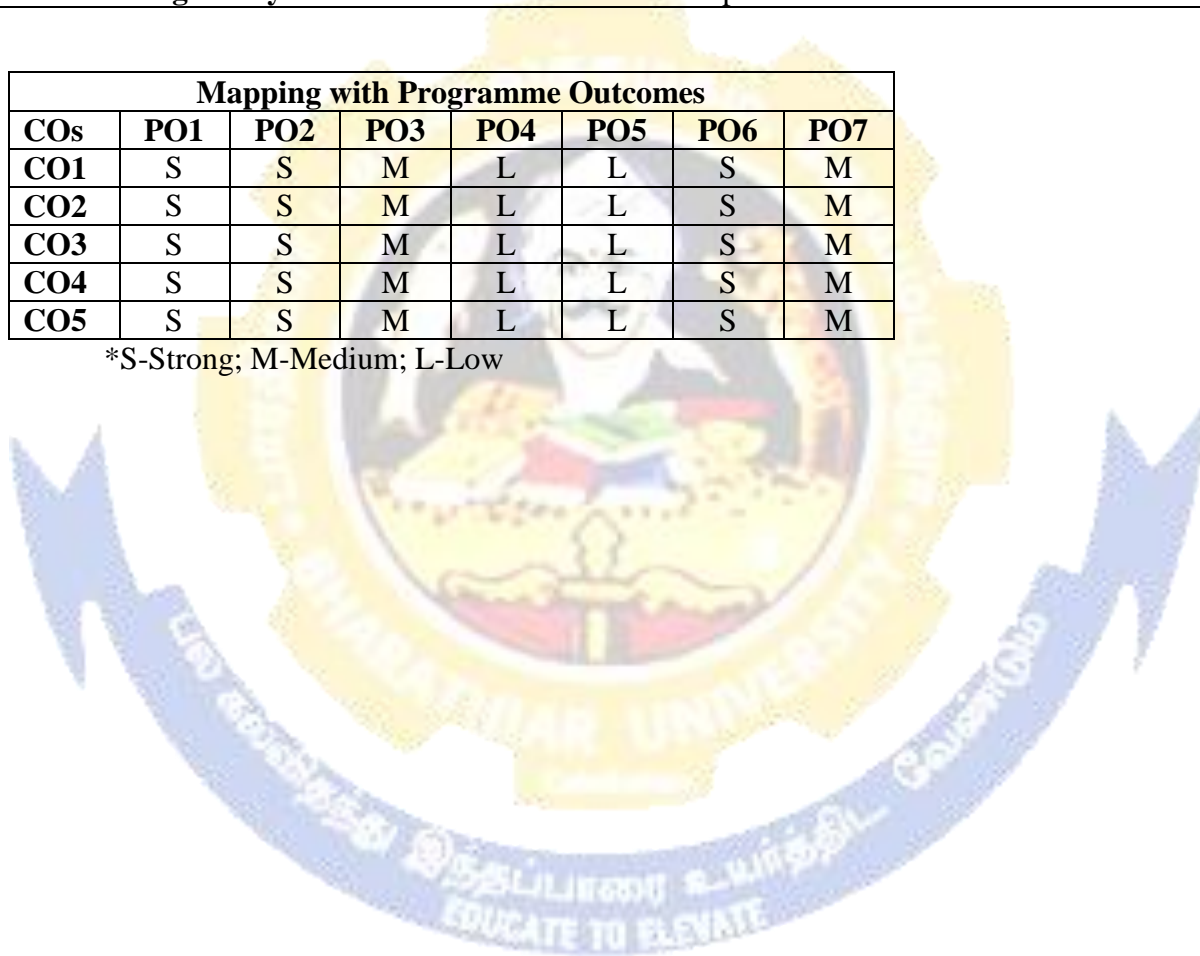
*S-Strong; M-Medium; L-Low

Course code	13P	FABRIC ANALYSIS		L	T	P	C	
Core Practical				-	-	2	2	
Pre-requisite		Basic knowledge of Science		Syllabus Version		2021-2022		
Course Objectives:								
The main objectives of this course are to:								
1. To analyze the single jersey and double jersey weft knitted structures to determine the stitch density, loop length, Tightness factor, and to determine the cam order, needle order requirements								
2. To analyze the feeder striper and auto striper structures to determine the yarn requirements, and yarn feeding order in creel								
3. To analyze the jacquard structures to determine the yarn requirements, and to determine the cam setting details								
4. To analyze the woven structures to determine the EPI, PPI, yarn count , yarn crimp and Cover factor, and to determine drafting order and peg planning								
Expected Course Outcomes:								
On the successful completion of the course, student will be able to:								
1	Analyze and Identify the type of fabric structure and fabric particulars for woven fabrics						K4	
2	Evaluate the machine requirements for producing woven fabric structures						K5	
3	Analyze and Identify the type of fabric structure and fabric particulars for knitted fabrics						K4	
4	Evaluate the machine requirements for producing knitted fabric structures						K5	
5	Create a fabric design for weaving / Knitting						K6	
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create								
Ex.No.1	Analyze the given knitted fabric sample for the following particulars						25 hours	
(i) Course and Wale Density (ii) Loop length (iii) Areal Density (GSM) (iv) Tightness Factor (v) Technical graph (vi) Cam order (vii) Needle order								
<ul style="list-style-type: none"> • Single jersey derivative – 3 samples • Double jersey derivatives- 3 samples • Auto stripe and Jacquard designs – 2 samples 								
Ex.No.2	Analyze the given woven fabric sample for the following particulars and draw the design, draft and peg plan						18 hours	
(i) EPI (ii) PPI (iii) Warp and Weft crimp and count (iv) Cover Factor (v) GSM								
<ul style="list-style-type: none"> • Plain weave and its derivative – 3 samples • Twill weave and its derivative - 3 samples • Satin and its derivative – 2 samples 								
Contemporary Issues						2 hours		
Expert lectures, online seminars - webinars								
Total Lecture hours						45 hours		
Text Books								
1	Fabric Structure and Design, N.Gokarneshan, New Age International Publishers, New Delhi, 2004							

2	Knitting Technology D. B. Ajgaonkar Universal Publishing Corp., Bombay, India, 1998.
Reference Books	
1	Design of Woven Fabrics, Blinov.I, Belay.S, MIR Publishers, Moscow, 1988.
2	Laboratory Practice in Knitting Technology, Kindriarvin, MIR Publications, NewDelhi, 1984.
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	https://fashion2apparel.blogspot.com/2017/01/properties-plain-knit-structures.html
2	https://textilelearner.blogspot.com/2013/07/theory-and-calculation-of-cover-factor.html
Course Designed By: Dr R Sheela John and Dr P P Gopalakrishnan	

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M

*S-Strong; M-Medium; L-Low



Course code	13Q	STITCHES AND SEAMS	L	T	P	C
Core Practical				-	-	2
Pre-requisite		Basic Knowledge of Science	Syllabus Version		2021-2022	
Course Objectives:						
The main objectives of this course are to:						
1. Enable the students to get practiced in Single Needle Lock Stitch machine						
2. Prepare the various types stitches and seams						
3. Prepare components of a garment such as collars, plackets, pockets and neck lines						
Expected Course Outcomes:						
On the successful completion of the course, student will be able to:						
1	Prepare the samples with various types of stitches					K6
2	Prepare the samples with various types of seams					K6
3	Construct different types of necklines, pockets, and sleeves					K6
4	Construct different types of plackets					K6
5	Construct different types of collars					K6
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create						
Ex.No.1	Practice on Single Needle Lock Stitch machine for given paper / fabric exercise – Straight lines, curves, squares, rectangles, triangles and any other irregular shapes					09 hours
Ex.No.2	Prepare at least five different stitches and seam samples by using different sewing machines and furnish the machine threading diagram along with stitch density and thread consumption details.					07 hours
Ex.No.3	Developing seams of various types - superimposed, bound, lapped, flat felt and piping.					04 hours
	Draft Patterns, and Construct the Following for the Given Measurement:					
Ex.No.4	Neck Lines – 3 types					05 hours
Ex.No.5	Collars – 3 types					05 hours
Ex.No.6	Sleeves – 3 types					05 hours
Ex.No.7	Plackets – 3 types					04 hours
Ex.No.8	Pockets – 3 types					04 hours
	Contemporary Issues					2 hours
Expert lectures, online seminars - webinars						
	Total Lecture hours					45 hours
Text Books						
1	The Technology of Clothing Manufacture, Harold Carrand Barbara Iatham, Black well Sciences, 1996.					
2	Apparel Manufacturing Handbook, Jacob Solinger, Van Nostrand Reinhold Company, 1980					
3	Apparel Manufacturing Sewn Product Analysis, Ruth E. Glock and Grace I. Kunz, Pearson Prentice Hall, 2005.					

Reference Books	
1	Sewing for the Apparel Industry, Shaeffer Claire, Prentice Hall, New Jersey, 2001.
2	A New Look at Apparel Mechanization, Technical Advisory Committee of AAMA, 1978.
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	https://sewguide.com/how-to-sew-seams/
2	https://blog.treasurie.com/types-of-necklines/
Course Designed By: Dr R Sheela John and Dr S Jayapriya	

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M

*S-Strong; M-Medium; L-Low



Course code	17V	INTERNSHIP TRAINING		L	T	P	C
Core				-	-	2	2
Pre-requisite		Familiar with the process sequence of the industry chosen		Syllabus Version		2021-2022	
Course Objectives:							
The main objectives of this course are to:							
<ol style="list-style-type: none"> 1. Impart practical knowledge on the processes in apparel production and related field 2. Analyze and interpret the information gathered 3. Prepare a report and make a presentation 							
Expected Course Outcomes:							
On the successful completion of the course, student will be able to:							
1	Break-down the process into various activities					K3	
2	document the details of the activities					K3	
3	prepare the requirements for each process and cost details					K4	
4	Develop a suitable method					K6	
5	Prepare the reports and presentations in the specified format.					K3	
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create							
Brief Outline of the Internship Training							
<ul style="list-style-type: none"> • The students must undergo full day training in Spinning / Weaving / Knitting / Dyeing / Printing / Finishing/ Washing / Sewing and other related areas of apparel production. Visit to industry should covers most of the segments of apparel industry and the time spent in each segment should also be uniform. • Students can undergo training individually or in a batch of maximum 4 nos. only will be allowed for training. • Training can be planned for stretch of 3 weeks in mid of semester or 2 days per cycle of 6 days. • The faculty in charge will give all the formats and guidelines for preparing report. • The students must record all the required information and observations during training and submit a rough copy within 5 days after completion of training. • Students must submit the attendance copy and performance card to the faculty in charge, obtained from the respective authority of company with seal and signature. Standard format for the above documents will be given by the department. • The report format and request letter can be collected by the students from the Department before the start of the training. • To assess the progress of training, student must present the details in the review meeting 							

during training period. The students will be assessed based on their Training report, Viva-Voce examination and the PPT presentation by the Internal and External examiners.	
	Total Lecture hours
	75 hours
Course Designed By: Dr R Sheela John and Dr P P Gopalakrishnan	

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M





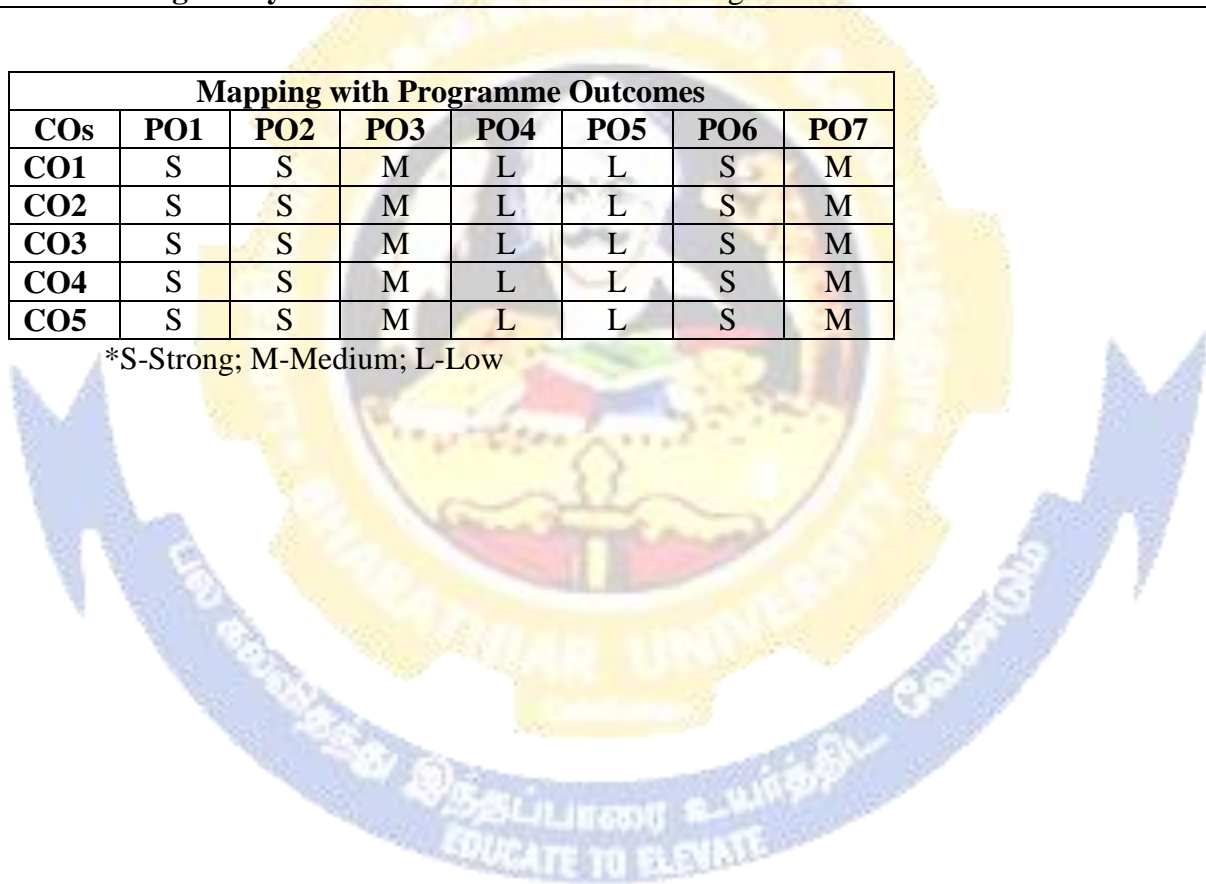
Second Semester

Course code	23A	APPAREL COSTING AND DOCUMENTATION	L	T	P	C
Core			3	-	-	3
Pre-requisite	Basics knowledge on garment manufacturing process	Syllabus Version	2021-2022			
Course Objectives:						
The main objectives of this course are to:						
1. Instruct about various test for yarns, fabrics and garments						
2. Describe about various levels of inspection and its procedure in apparel production						
3. Describe about various norms and standards followed in testing and inspection						
Expected Course Outcomes:						
On the successful completion of the course, student will be able to:						
1	Understand the elements of cost , costing procedure and INCO terms					K2
2	Analyse finished fabric cost					K4
3	Apply arriving factory cost for various garment styles					K3
4	Learn about the export procedure and documents to be prepared					K2
5	gain knowledge of customs procedure					K2
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create						
Unit:1	Costing and its Elements					12 hours
Introduction to costing - types of costs - Elements of cost. Prime cost - work cost - cost of production - total cost. INCO terms and its relationship with costing.						
Unit:2	Process Costing					12 hours
Cost estimation of yarn, knitted fabric, dyeing, printing and finishing. Woven Fabric Costing: fabric types, yarn consumption, weaving price Cost estimation for cutting, stitching, checking, packing, forwarding, shipping, and insurance.						
Unit:3	Product Costing					12 hours
Estimation of factory cost for Woven and Knitted - vest, briefs , shorts, t-shirts, pajamas, children's wear, ladies wear, Woven Shirt, Woven Tops and Bottom. Various factors to be considered in costing for domestic products and international products						
Unit:4	Documentation					12 hours
Procedure to start an export firm - Sales contract and its check list. Export Procedure -Pre-Shipment and Post Shipment Credit - Payment Terms - Logistic Management. Need for Documents – Invoice - Certificate of Origin - L/C, Shipping Bill - Bills of Exchange- Bill of Lading - GR Form - Packing List - Duty Draw Back – Export License - Marine Insurance Policy.						
Unit:5	Customs, Meaning and Types					10 hours
Customs - Meaning, Definition, Types. Exercise and Customs, Clearance of Export Cargo – Shipment of Goods and Port Procedures - Claiming Duty Draw Backs and Other Benefits.						
Unit:6	Contemporary Issues					2 hours
Expert lectures, online seminars - webinars						
					Total Lecture hours	60 hours

Text Books	
1	Apparel Costing, A functional Approach – Krishnakumar, M, Abishek Publications, Chandigarh, 2012
2	Evaluation of Apparel Quality, Anitha A. Stamper, Fairchild Fashion Group, 1991.
Reference Book	
1	Apparel Merchandising, Jeremy Rosenau, Fairchild Publications, 2001.
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	https://www.incotermsexplained.com/the-incoterms-rules/the-eleven-rules-in-brief/cost-freight/
2	https://www.onlineclothingstudy.com/2015/10/product-and-process-costing-in-garment.html
Course Designed By: Dr R Sheela John and Mrs N Sangeetha	

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M

*S-Strong; M-Medium; L-Low



Course code	23B	APPAREL MERCHANDISING		L	T	P	C	
Core				3	-	-	3	
Pre-requisite		Basic knowledge on the functioning of an apparel industry		Syllabus Version		2021-2022		
Course Objectives:								
The main objectives of this course are to:								
<ol style="list-style-type: none"> 1. Instruct about roles and responsibilities of merchandiser 2. Describe about planning and programming in execution of an order 3. Describe about types of approvals to be given 								
Expected Course Outcomes:								
On the successful completion of the course, student will be able to:								
1	Understand the functions of merchandiser						K2	
2	Apply the knowledge gained in planning and programming						K3	
3	Analyse the types of approval and inspection procedures						K4	
4	Relate to the list of documents to be prepared						K2	
5	Apply the principles on product promotion						K3	
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create								
Unit:1		Introduction to Merchandising				12 hours		
Merchandising: Introduction, Meaning- Apparel Merchandising – Concepts of „Six Rights“ – Organisation structure of an apparel industry – Classification of Exporters - Rating or Grading of export houses – Classification of buyers – Export merchandising and retail merchandising – Company profile and its contents. Types of merchandiser - Functions of a merchandiser – Essential requisites of a good merchandiser – Vendor sourcing, evaluation and development – Global sourcing – Vendor nomination by buyers – Reasons for vendor nomination.								
Unit:2		Planning and Programming				12 hours		
Process flow in apparel industry – Buyer sourcing and communication – Enquiry – Order confirmation – order review and its importance – Planning and programming: Master planning, Scheduling or route card – Factors for route card - programming for yarn, knitting, dyeing, stitching, sampling, accessories – Samples: Meaning and importance – Types of samples – expedition of samples								
Unit:3		Approvals and Inspection				12 hours		
Check points before cutting - Pilot run or trial run and its importance – Approvals - Types of approvals – Shipping marks – Final inspection procedures – Self, Second and Third party inspection - Effective expedition procedures.								
Unit:4		Order Sheet and Documentation				12 hours		
Order sheet and its contents – Packing list and its contents – Document formats: order sheet, packing list, invoice, inspection and testing reports etc., - Assortment and its types. Documents recording and maintenance – Claims and reasons for claims - Factory audits – Buyer’s code of conducts.								
Unit:5		Product Promotion				10 hours		
Advertising- scope, importance, types, merits and demerits; sales promotion, personal selling.								

Retail management. Export associations – Apparel Export Promotion Council – Journals and magazines related to apparel and textiles –Trade shows and Fairs – Participation in trade shows – Advantages of trade shows and fairs - Apparel and Textile Trade shows and fairs in India.		
Unit:6	Contemporary Issues	2 hours
Expert lectures, online seminars - webinars		
Total Lecture hours		60 hours
Text Books		
1	Apparel Merchandising, Jerry A and Rosenau, Fairchild Publications, London, 2010	
2	Apparel Merchandising, Robin Mathew, Book Enclave Publishers, Jaipur, 2008	
Reference Books		
1	Apparel Merchandising, An integrated Approach, Krishnakumar, M, Abishek Publications, 2010.	
2	Fashion Merchandising, Elian Stone, Gregg Division, McGraw-Hill, 1990	
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]		
1	https://garmentsmerchandising.com/roles-of-a-merchandiser-in-garment-industry/	
2	http://images.pcmac.org/SiSFiles/Schools/TX/CentralHeights/CentralHeightsHigh/Uploads/DocumentsCategories/Documents/Ch_10.pdf	
3	https://www.businessmanagementideas.com/marketing-management/personal-selling/personal-selling/20228	
Course Designed By: Dr R Sheela John and Dr S Jayapriya		

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M

*S-Strong; M-Medium; L-Low

Course code	23C	APPAREL QUALITY MANAGEMENT		L	T	P	C	
Core				3	-	-	3	
Pre-requisite		Basic knowledge on the fiber, yarn, and fabric and garment		Syllabus Version		2021-2022		
Course Objectives:								
The main objectives of this course are to:								
1. Instruct various test for yarns, fabrics and garments								
2. Describe about various levels of inspection and its procedure in apparel production								
3. Describe about various norms and standards followed in testing and inspection								
Expected Course Outcomes:								
On the successful completion of the course, student will be able to:								
1	Understand the concept of testing and inspection, and the various standards followed in testing textiles.						K2	
2	be aware of the testing method for assessing fabric quality						K2	
3	gain knowledge of about the quality assessment of trims and accessories						K3	
4	Learn about the in-process inspection during apparel production, various defects occurred and their causes						K2	
5	be trained about the final inspection procedure, and tools used for QC						K4	
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create								
Unit:1		Quality Concepts				12 hours		
Importance of Quality. Quality definitions- QC, QA and TQM concepts. Testing: Objectives of Testing - atmospheric conditions for testing lab. Inspection: Definition - Types of Inspection. Brief study about Testing Standards; AATCC, ASTM and ISO.								
Unit:2		Fabric Quality				12 hours		
Raw materials inspection: fabric inspection – 4 point and 10 point system, fabric spirality and bowing. Testing of fabric dimensional stability, GSM and color fastness. Testing of embroidered, printed cut panels.								
Unit:3		Accessories and Trims Quality				12 hours		
Testing of Sewing thread, zippers, Buttons, interlinings. Sewing needle types and selection of needle for sewing. Quality specifications for Polybags and cartoons. Care labels								
Unit:4		Process Quality				12 hours		
In process inspection and its significance in apparel quality. Quality considerations during pattern making, marker making and spreading. Defects in Sewing, Ironing and Packing and their causes. Testing of Seam strength and seam slippage.								
Unit:5		Final Inspection				10 hours		
Final inspection procedures. AQL concept, MIL STD 105E, Types of Sampling plan. Categories of defects. Tools of quality control.								
Unit:6		Contemporary Issues				2 hours		
Expert lectures, online seminars - webinars								
						Total Lecture hours		
						60 hours		

Text Books	
1	Physical testing of Textiles, B.P.Saville, Elsevier Science, 1999
2	Managing Quality in Apparel Industries, Pradeep V Metha and Satish k. Bhardwaj, New Age International (P) Ltd, 1998.
Reference Books	
1	Principles of Textile Testing, J.E. Booth, Butterworths, 1986.
2	Hand book of Textile Testing and Quality Control, Elliot b. Grover and D.S. Hamby, Wiley Eastern, 1988.
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	https://clothingindustry.blogspot.com/2017/12/fabric-inspection-systems.html
2	https://textilelearner.blogspot.com/2015/06/in-process-inspection-in-garment.html
Course Designed By: Dr R Sheela John and Mrs K Catharine Francis	

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M

*S-Strong; M-Medium; L-Low

Course code	23P	TEXTILE TESTING		L	T	P	C	
Core - Practical				-	-	2	2	
Pre-requisite		Basic knowledge on the properties of fiber, yarn and fabric		Syllabus Version		2021-2022		
Course Objectives:								
The main objectives of this course are to:								
1. Train about fibre identification tests								
2. Train about testing of yarn parameters								
3. Train about various physical and chemical testing of fabrics								
Expected Course Outcomes:								
On the successful completion of the course, student will be able to:								
1	Evaluate and identify the fibre composition in a blended fabric						K5	
2	Evaluate the yarn quality parameters such as count, strength and twist						K5	
3	Evaluate the fabric quality parameters such as CRA , drapability and CRA						K5	
4	Evaluate the fabric colour fastness to washing, rubbing and perspiration						K5	
5	Evaluate the fabric dimensional stability						K5	
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create								
Ex.No.1	Determination of count of yarn using wrap reel and weighing scale						02 hours	
Ex.No.2	Determination of lea strength and CSP using lea strength tester						02 hours	
Ex.No.3	Determination of yarn count from fabric swatch using beesley balance.						02 hours	
Ex.No.4	Determination of twist of single yarn using electronic twist tester.						02hours	
Ex.No.5	Identification of fibre using microscope and by chemical test.						03 hours	
Ex.No.6	Determination of CRA of fabric using crease recover tester.						03 hours	
Ex.No.7	Determination of color fastness of given sample to washing by using launderometer.						03 hours	
Ex.No.8	Determination of color fastness of given sample to rubbing by using crock meter						02 hours	
Ex.No.9	Determination of color fastness of given sample to perspiration by using perspirometer						03 hours	
Ex.No.10	Determination of dimensional stability% of a given fabric/garment to washing.						03 hours	
Ex.No.11	Determination of fabric drape ability using drape meter						03 hours	
Unit:6	Contemporary Issues						2 hours	
Expert lectures, online seminars - webinars								
						Total Lecture hours	30 hours	
Text Books								
1	Physical testing of Textiles, B.P.Saville, Elsevier Science, 1999							
2	Managing Quality in Apparel Industries, Pradeep V Metha and Satish k. Bhardwaj, New Age International (P) Ltd, 1998.							
Reference Books								
1	Principles of Textile Testing, J.E. Booth, Butterworths, 1986.							

2	Hand book of Textile Testing and Quality Control, Elliot b. Grover and D.S. Hamby, Wiley Eastern, 1988.
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	https://www.testing-instruments.com/blog/determine-the-exact-weight-and-length-of-yarn-with-beesley-balance/
2	https://www.intouch-quality.com/blog/5-color-fastness-tests-to-prevent-textile-fading-and-staining
Course Designed By: Dr R Sheela John and Dr P P Gopalakrishnan	

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M

*S-Strong; M-Medium; L-Low



Course code	23Q	PATTERN MAKING AND GARMENT CONSTRUCTION	L	T	P	C
Core - Practical				-	-	2
Pre-requisite		Basic knowledge on creating garment components	Syllabus Version		2021-2022	
Course Objectives:						
The main objectives of this course are to:						
1. Train in preparing patterns for various styles						
2. Enable the students to cut the fabric as per pattern and sew						
Expected Course Outcomes:						
On the successful completion of the course, student will be able to:						
1	Prepare pattern for various garment styles as per the measurement chart					K3
2	Cut the garment as per prepared pattern					K2
3	Select the suitable machines for assembly of parts					K2
4	Set the machine as per quality requirements					K4
5	Sew the parts as per specification without defects					K4
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create						
Draft patterns and construct the following garments						
Ex.No.1	Men's Vest RNS					6 hours
Ex.No.2	Men's round neck t-shirt.					6 hours
Ex.No.3	Men's Polo t-shirt					7 hours
Ex.No.4	Men's Hooded t-shirt					8 hours
Ex.No.5	Men's Trouser					6 hours
Ex.No.6	Men's Boxer shorts					6 hours
Ex.No.7	Romper					6 hours
Ex.No.8	Baba Suit					6 hours
Ex.No.9	A Line Frock					6 hours
Ex.No.10	Ladies Basic Bodice					6 hours
Ex.No.11	Nighties					5 hours
Ex.No.12	Ladies Skirt					5 hours
Unit:6	Contemporary Issues					2 hours
Expert lectures, online seminars - webinars						
					Total Lecture hours	75 hours
Text Books						
1	Design and pattern making for stretch fabrics, Richardson, Fairchild book, New Delhi, 2017.					
2	The stretch and sew guide to sewing on knits Ann Pearson, Stretch & Sew, Inc, 1974.					
Reference Book						
1	Sewing for the Apparel Industry, Shaeffer Claire, Prentice Hall, New Jersey, 2001.					
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]						
1	https://sewguide.com/a-line-dress-pattern/					
2	https://www.youtube.com/watch?v=u8q9iWt0TZA					

Course Designed By: Dr R Sheela John and Mrs N Sangeetha

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M

*S-Strong; M-Medium; L-Low

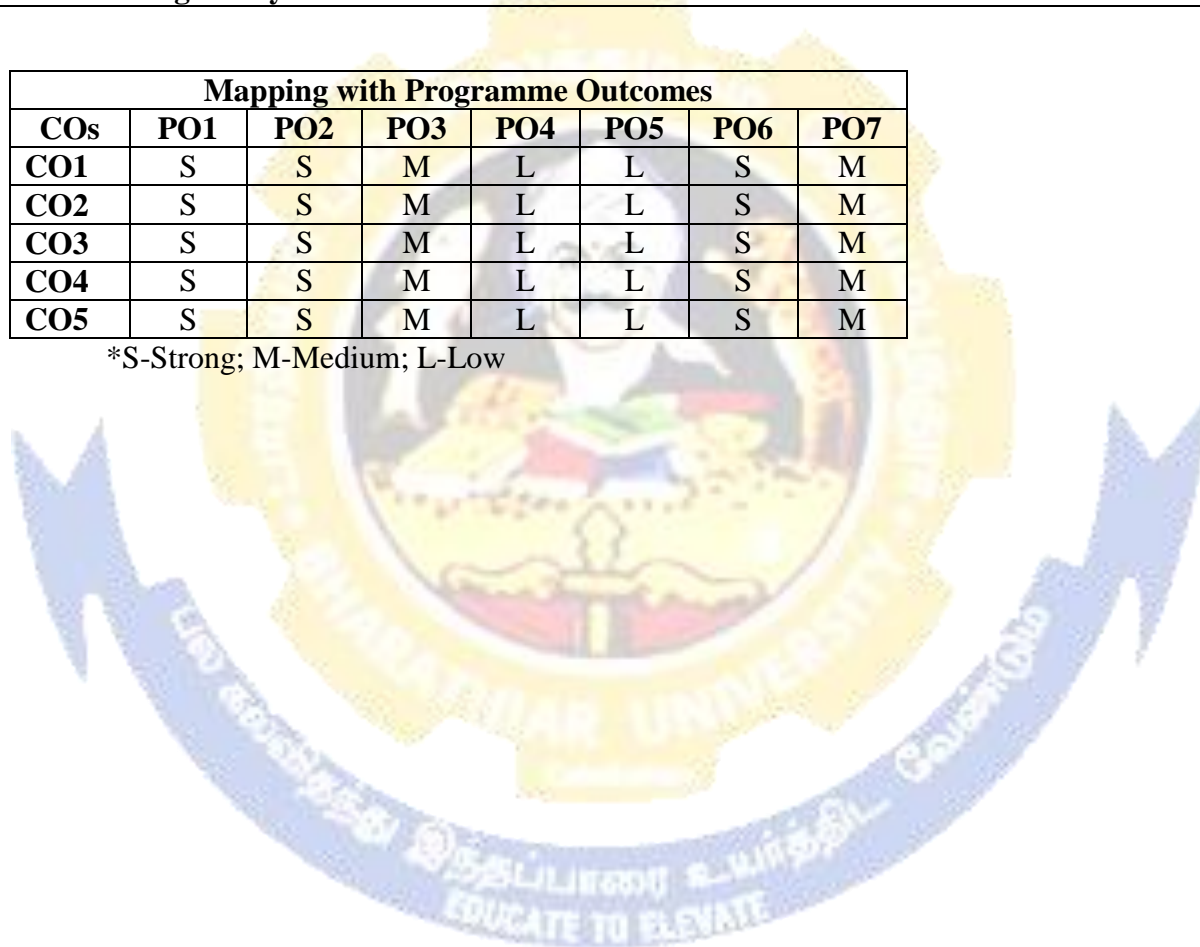


Course code	23R	COMPUTER AIDED PATTERN MAKING		L	T	P	C
Core - Practical				-	-	2	2
Pre-requisite		Basic knowledge on pattern making, grading and marker plan		Syllabus Version		2021-2022	
Course Objectives:							
The main objectives of this course are to:							
<ol style="list-style-type: none"> 1. Train in preparing patterns using pattern CAD software for various styles 2. Train in grading patterns for various sizes 3. Train in preparing marker with maximum efficiency 							
Expected Course Outcomes:							
On the successful completion of the course, student will be able to:							
1	Prepare patterns for various garment styles as per the measurement chart using CAD software					K6	
2	Grade the patterns for various sizes					K5	
3	Prepare marker plan					K6	
4	Plan for a greater marker efficiency					K4	
5	Estimating lay length and calculating marker efficiency					K2	
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create							
CAD software is used to practice the following styles mentioned,							
1.Create Pattern on computer screen, adding details to patterns.							
2. Digitizing, saving, extracting and editing patterns from stock library of Patterns.							
3. Grading patterns on different size scale.							
4. Making Marker plan for cutting fabrics.							
5. Estimating lay length and calculating marker efficiency.							
6. Fit analysis of the given pattern using 3D CAD software.							
Ex.No.1	Men's Basic T Shirt					2 hours	
Ex.No.2	Raglan with Pocket					2 hours	
Ex.No.3	Men's Polo T Shirt					3 hours	
Ex.No.4	Men's Trouser					3 hours	
Ex.No.5	Men's T-Shirt with hood					3 hours	
Ex.No.6	Men's Inner Garment – Vests RN / RNS					2 hours	
Ex.No.7	Ladies Skirt					2 hours	
Ex.No.8	Women's Nighties					3 hours	
Ex.No.9	Kid's Wear – Romper					3 hours	
Ex.No.10	Kid's Wear – A Line frock					2 hours	
Ex.No.11	Children's Suits and Pyjama					3 hours	
Unit:6	Contemporary Issues					2 hours	
Expert lectures, online seminars - webinars							
						Total Lecture hours	30 hours
Text Books							
1	Computer aided pattern design product development , Asim Kumar, Roy Choudry, PaiandSon book seller, Coimbatore						

2	Pattern cutting for clothing using CAD, -Lectra and Modaris ,M.Stott, Woodhead Publishing, ASIN
Reference Book	
1	Computerized Patternmaking for Apparel Production, Laura Nugent, Bloomsbury Publishing PLC, 2016
Related Online Contents [MOOC, SWAYAM, NPTEL, Websites etc.]	
1	https://tukatech.com/tukacad-shortcuts/
2	https://optitex.com/products/2d-and-3d-cad-software/
Course Designed By: Dr R Sheela John and MrS Kokilavani	

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M

*S-Strong; M-Medium; L-Low



Course code	27V	PROJECT WORK		L	T	P	C
Core				-	-	4	4
Pre-requisite	Basic knowledge on the various sectors of apparel industry		Syllabus Version	2021-2022			
Course Objectives:							
The main objectives of this course are to:							
<ol style="list-style-type: none"> 1. Identify a problem in the field of apparel production and related field 2. Survey or carry out activities leading to generation of new knowledge. 3. Prepare a report and make a presentation 							
Expected Course Outcomes:							
On the successful completion of the course, student will be able to:							
1	Identify, formulate a real world problem and break-down the complex problems into various concepts and principles based on the literature search					K3	
2	Identify the activities required and methods to fulfill them and prepare a work-plan to execute the activities					K3	
3	Create and / or select appropriate processes / tools for preparation of work plan(materials and methods)					K6	
4	Develop a product or process with systematic approach involving problem analysis, designing solutions (considering health, safety, legal and cultural issues)					K6	
5	Prepare the reports and presentations in the specified format.					K3	
K1 - Remember; K2 - Understand; K3 - Apply; K4 - Analyze; K5 - Evaluate; K6 - Create							
<ul style="list-style-type: none"> • Each student or batch will be allotted to a faculty guide based on the selected area of interest. Area of interest and guide allotment should be finalized before the commencement of 6th semester. • Students can carry out the project work individually or as a group. A group can have a maximum of 4 students only. • Period of project work may be completed in 3 weeks or 2 days per cycle of 6 days. • Project areas/ topics should be in the following areas - Spinning / weaving / Knitting / Dyeing / Printing / Finishing/ Washing / Sewing or any other related areas of Apparel production. • Project work may be a technical one such as development of new product / process or an in depth study of Existing Process for improvement. It may be non-technical such as Study on HRM, QMS, Marketing, Retail, finance etc. But it should be done in the areas connected to the apparel business. • All the formats and guidelines for preparing report will be given by the department. • The students must prepare and submit a rough copy on or before third week of February. • Student must present for review meeting conducted during project period and the progress will be assessed by the team of faculty members comprising guide and Head of the Department. 							

	Total Lecture hours	105 hours
Course Designed By: Dr R Sheela John and Dr P P Gopalakrishnan		

Mapping with Programme Outcomes							
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	S	S	M	L	L	S	M
CO2	S	S	M	L	L	S	M
CO3	S	S	M	L	L	S	M
CO4	S	S	M	L	L	S	M
CO5	S	S	M	L	L	S	M

*S-Strong; M-Medium; L-Low





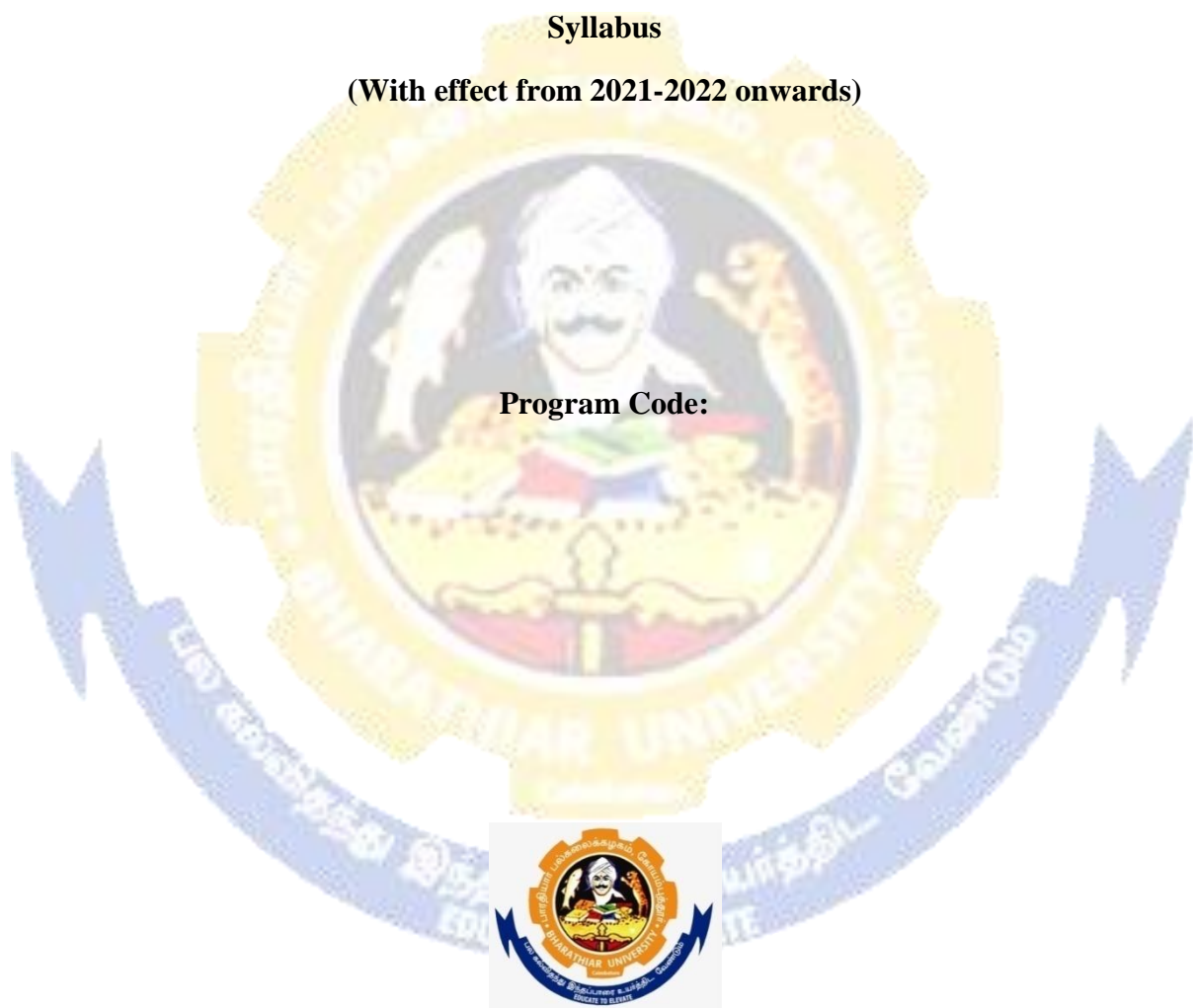
Annexure

PG Diploma in Apparel Merchandising & Management

Syllabus

(With effect from 2021-2022 onwards)

Program Code:



**DEPARTMENT OF PG DIPLOMA IN APPAREL MERCHANDISING &
MANAGEMENT**

Bharathiar University
(A State University, Accredited with “A” Grade by NAAC and
13th Rank among Indian Universities by MHRD-NIRF)
Coimbatore 641 046, INDIA