



**PSGR
Krishnammal College for Women**



**DEPARTMENT OF COSTUME AND APPAREL DESIGN
PROGRAMME: M. Sc FASHION AND APPAREL DESIGN**

**CHOICE BASED CREDIT SYSTEM &
OUTCOME BASED EDUCATION
SYLLABUS
(Semester – I II, III & IV)**

**M. Sc FASHION AND APPAREL DESIGN
2023-2025 Batch**



PROGRAMME LEARNING OUTCOMES (PLO's)

After completion of the programme, the student will be able to

- **PLO1:** Understand diverse cultural influences and market demands of apparel industry
- **PLO2:** Create innovative functional and aesthetic apparels and accessories.
- **PLO3:** Design apparels with advance digital tools and technologies
- **PLO4:** Research and analyze textile and fashion trends
- **PLO5:** Apply knowledge and skill in the fashion field and promote entrepreneurship.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

The students at the time of graduation

- **PSO1:** Graduates can function independently with their innovative and creative skills
- **PSO2:** Graduates will be able to meet the current requirements of apparel Industries
- **PSO3:** Graduates can undertake research /projects for new product development

DEPARTMENT OF COSTUME AND APPAREL DESIGN
CHOICE BASED CREDIT SYSTEM & OUT COME BASED EDUCATION
SYLLABUS & SCHEME OF EXAMINATION
MASTER OF FASHION AND APPAREL DESIGN – 2023-2025 BATCH

SEM	Subject Code	Title of the Paper	Instruction hours/week	Contact hours	Tutorial Hours	Duration of Examination	Examination Marks			Credits
							CA	ESE	TOTAL	
I	MFD2301	Fashion Forecasting and Product Development (Paper - I)	4	58	2	3	25	75	100	4
	MFD2302	International Trade and Documentation (Paper - II)	4	58	2	3	25	75	100	4
	MFD2303	Apparel Production Planning and Control (Paper - III)	4	58	2	3	25	75	100	4
	MFD23P01	Creative Draping (Practical - I)	6	90	-	4	25	75	100	3
	MFD23P02	Virtual Design (Practical - II)	6	90	-	3	25	75	100	3
	MFD23P03	New Product Design Development – Functional Clothing (Practical - III)	6	90	-	3	25	75	100	3
I-III	17MONL1	Online Course 1 #	-	-	-	-	-	-	-	Completion Certificate

[illegible]

SEMESTER	Course Code	Title of the Course	Course type	Instruction	Contact hours	Tutorial Hours	Duration of Examination	Examination Marks			Credits
III								CA	ESE	TOTAL	
II-III	MFD23CE	Coursera Digital Fashion Management	DSE	3	45	-	-	100	-	100	3
	MFD2307	Textile and Apparel Testing	CC	4	58	2	3	25	75	100	4
	MFD2308	Apparel Quality Standards and Specification	CC	4	58	2	3	25	75	100	4
	MFD23P06	3D Apparel Design and Modelling Lab	CC	5	75	-	3	25	75	100	4
	MFD23P07	Textile and Apparel Testing Lab	CC	6	90	-	3	25	75	100	4
	MFD23E04/ MFD23E05/ MFD23E06	Elective II Nano Textiles/ Protective Textiles- Health Care Application/ Compliance Standards in Apparel Industry	DSE	3	43	2	3	25	75	100	3
	MFD23S1	Special Course Research Methodology and Statistics	GE	3	43	2	3	-	100	100	2

	MFD23COM	Comprehensive Exam (Self-study)	GC	-			-	-	100	100	Gr
I-III	17MONL1	Online Course 1 #	ACC	-	-	-	-	-	-	-	Completion Certificate
	NM22CS2	Cyber Security	AECC	2	30	-	-	100	-	100	Gr
	MFD23INST1	Internship	DSE	15days Internship Training in Apparel Industry						100	Gr



**M.Sc. FASHION AND APPAREL DESIGN
CHOICE BASED CREDIT SYSTEM (CBCS)&
LEARNING OUTCOMES- BASED CURRICULAR FRAMEWORK (LOCF) SYLLABUS &
SCHEME OF EXAMINATION
BATCH 2023-2025 , SEMESTER –IV**

Programme and Branch: M.Sc. Fashion and Apparel Design											
SEMESTER	Course Code	Title of the Course	Course type	Instructionn	Contact hours	Tutorial Hours	Duration of Examinationn	Examination Marks			Credits
IV								CA	ESE	TOTAL	
	MFD2309	Home Textiles	CC	5	73	2	3	25	75	100	4
	MFD23P08	Home Textiles - Product Development Lab	CC	7	105	-	4	25	75	100	5
	MFD23PROJ	Project and Viva voce	DSE	18	-	-	-	25	75	100	12
	MFD2310	ALC Indian Traditional Textiles Crafts	ACC	#SS	-	-	3	25	75	100	5
I-IV		Total								Marks 2300	Credits 90

CC-All core courses **ACC**-Additional credit course **CA** – Continuous Assessment

ESE - End Semester Examination **ALC**-Advance learner course **#SS**-Self-study

* Credits applicable to candidates who take up Advanced Level Course examination

MFD2301	SEMESTER – I FASHION FORECASTING AND PRODUCT DEVELOPMENT PAPER - I	Category	L	T	P	Credit
		Theory	58	2	-	4

Preamble

This course explores the intricacies of fashion forecasting and design logics in apparel production

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Acquire knowledge on types, sources, processes and services of fashion forecasting	K1
CLO2	Explain the forecaster's and forecasting services role and decision making processes	K2
CLO3	Develop plans to engineer apparel products	K5
CLO4	Develop new products and evaluate it from design to commercialization	K6
CLO5	Evaluate the economics underlying apparel products and projects	K6

Mapping with Programme outcomes

CLOs	PO1	PO2	PO3	PO4	PO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	M	S	S	S	S
CLO4	S	S	S	S	S
CLO5	S	M	M	S	S

S – Strong; M – Medium

Syllabus

UNIT I

11 Hours

Definition of forecasting - types of forecasting – Source of fashion forecasting information – forecasting agencies and their role in forecasting. Seasons and their impact on fashion. Compiling fashion forecasting information - forecasting agencies – forecasting magazines – websites – information in the forecasting publications. Fashion forecasting in Indian Scenario.

UNIT II

12 Hours

Fashion forecasting packages and magazines specialist fashion forecasting companies – the role of forecaster in aiding fashion designers, developers and retailers- process of forecasting- decision making process-when to start forecasting for the selling season.

UNIT III

12 Hours

Design logic of apparel products - Classification of textile products, components, aesthetics and comfort of textile products, anthropometry, sizing, body scanning and fit analysis. Material, specification, properties and technology of constituent fibres, yarns, fabrics and apparels.

UNIT IV

12 Hours

Building of the first design ideas, planning to costing, line building, from spec to samples, production selling and three seasons. Developing new product - Idea generation, idea screening, concept testing, business analysis, the product development Process, group product development, research, test marketing, commercialization.

UNIT V

11 Hours

Evaluation of portfolio of products or projects–introduction and purpose of economic analysis – market potential – market demand – estimating sales –estimating cost and profit.

TEXTBOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Harold Carr & John Pomeroy	Fashion Design and Product development	Wiley India (P)Ltd	2009
2.	Michael R. Solomen, Nancy J.Rabit	Consumer Behavior in Fashion	Pearson Education Inc	2008
3.	Kitty G. Dickerson	Inside the Fashion Business	Pentice hall	2002

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Evelyn Brannon L, Lorynn Divita	Fashion Forecasting	Bloomsbury Academic	2015
2.	Gini Stephens Frings	Fashion from Concept to Consumer	Pearson Education Inc	2007

3.	Peter Mc Claud	Past and Present Trends Fashion Technology	Abhishek Publications	2013
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E-Journals

- Journal of Textile and Apparel, Technology and Management
- Journal of Textile Engineering and Fashion Technology
- Fashion and Textiles
- Journal of Textile Engineering and Fashion Technology
- Journal of Fashion Technology & Textile Engineering
- Textile World
- Trends in Textile Engineering & Fashion Technology
- The Textile Association

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr. R. Radhika

MFD2302	SEMESTER – I INTERNATIONAL TRADE AND DOCUMENTATION PAPER - II	Category	L	T	P	Credit
		Theory	58	2	-	4

Preamble

This course helps to gain insights into the multifaceted landscape of international trade, export procedures, and the intricate web of global commerce.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand international trade theories and concepts	K1
CLO2	Explain the regulatory requirements, including customs procedures and import/export restrictions, that impact international trade	K2
CLO3	Demonstrate proficiency in preparing and processing essential trade documents.	K3
CLO4	Understand the role of promotional councils and financial institutions in facilitating international trade transactions.	K3
CLO5	Evaluate the significance of regional trade agreements and their effects on participating countries.	K6

Mapping with Programme outcomes

CLOs	PO1	PO2	PO3	PO4	PO5
CLO1	S	S	M	S	S
CLO2	S	M	M	S	S
CLO3	S	S	M	S	S
CLO4	S	S	M	S	S
CLO5	S	M	M	S	S

S – Strong; M – Medium

Syllabus

UNIT I

11Hours

Need for international trade–features–advantages–problems of foreign trade.

International trade documents - regulatory frame work – foreign trade documents –regulatory and

UNIT II

12 Hours

WTO - globalization – EXIM policy – regional trade agreements – current trends in international trade. Export order execution - steps in export procedure, risks involved in documentation procedure, customs clearance. Export risk management, export barriers-tariff and non tariff barriers.

UNIT III

11Hours

Export procedures-getting established as an exporter–entering in to export contract–execution-post shipment procedures – export promotion measures – incentive and facilities to exporters. Import procedures - import process – customs clearance for imports – role of custom and exercise in international trade.

UNIT IV

12 Hours

Multi fiber agreement and bilateral textile agreements signed by India with importing quota countries. Government of India's export entitlement policy on garment exports. Export firm nature of export firm, setting up of an export firm, export licensing, registration formalities – registrations with RBI, EPC, DGFT, commodity boards, income tax and customs authorities.

UNIT V

12 Hours

Role of export promotional councils, commodity boards, ECGC, role of commercial banks, establishment & significance of SEZ & EPZ, availing concessions and incentives under various export promotion schemes, duty drawback, subsidies. Trade blocs: Effects of trade blocs on world trade, major trade blocs– EU, ASEAN and NAFTA

TEXT BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Aseem kumar	Export and import management	Excel Books	2007
2.	Francis Cherunilam	International Trade and Export Management	Himalaya publishing house	2008
3.	Balagopal	Export Management	Himalayan Publications	2016

REFERENCEBOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Darlie O. Koshy	Garment Exports	Prentice 'Hall	2006

2.	Sudhir Kochhar	Export Procedures and Documentation,	Import and Gullybaba Publishing House	2012
3.	Agarwal R raj	Indian Foreign Trade	Excel Books	2002

E – Journals

- Fashion and Textiles
- The Textile Association
- Trends in Textile Engineering & Fashion Technology
- Textile World

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar, demonstration.

Course Designer

Dr. R. Radhika

MFD2303	SEMESTER-I APPAREL PRODUCTION PLANNING AND CONTROL PAPER - III	Category	L	T	P	Credit
		Theory	58	2	-	4

Preamble

This course provides a holistic understanding of apparel manufacturing, emphasizing efficiency, quality, and emerging advancements

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the basic techniques of production control in apparel industry.	K2
CLO2	Describe the preproduction functions and product development process.	K2
CLO3	Identify the production systems for apparel industry based on style and quantity of merchandise.	K3
CLO4	Determine the capacity planning and line balancing techniques to achieve balanced production.	K4
CLO5	Prepare the flow process grids and scheduling charts for production control and explain the cut order planning and control forms for apparel industry.	K5

Mapping with Programme outcomes

CLOs	PO1	PO2	PO3	PO4	PO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	M	S	M	S
CLO4	S	M	S	S	S
CLO5	S	S	S	M	S

S – Strong; M – Medium; L - Low

UNIT I**12 Hours**

Apparel Manufacturing Industry-Nature and Scope. Major functions of apparel manufacturing –Engineering and Management functions. Material flow in apparel industry. Introduction to core concepts of apparel production, evolution of apparel production processes mass production concepts and standardization of sizing. Various production systems practiced in India and their application for different apparel products, emerging trends in apparel production processes.

UNIT II**12 Hours**

Production Planning and control - objectives, levels, functions and strategies. Production control - objectives, importance and functions. Role of production planning and control department in apparel industry. Productivity – concept, measuring productivity and characteristics. Preproduction functions – product acceptance, steps from prototype to production model, order requirements. Work study - Definition, purpose, techniques of work study. Procedure of work study. Work study in textile and apparel industries. Time and motion study in the apparel industry.

UNIT III**12 Hours**

Spreading, cutting and sewing - Apparel production processes - Introduction to garment cutting, marker planning, efficiency of marker, methods of marker planning, and spreading of the fabric to form a lay, spreading requirements, methods of spreading, objectives of cutting, and methods of cutting. Automation in spreading, cutting and sewing. Robotics for 3D sewing operations. Seam stitch - Introduction to seam and stitch, stitch classification, stitch structure, seam formation, joining material, surface characteristics, seam appearance, damages - thermal and mechanical, seam performance, seam degradation, seam failure and seam testing. Sewing thread and selection of sewing thread for different fabrics.

UNIT IV**11 Hours**

Finishing, quality checking and packing - apparel finishing importance of garment pressing and finishing, types of garments, pressing of garments and specialty garment finishes. Quality checking - inspection, interactive bar coding, needle detection. Packaging and warehousing - types of packing and packing materials, quality specification, merchandise packing and shipping packing, intra transport, warehousing. Computerized storage systems, automation in material handling

UNIT V**11 Hours**

Capacity planning and innovative trends - Determination of machinery requirements for a new factory, calculation of labour requirements, application of line balancing techniques, balance control. Advanced tools and equipment in industrial engineering. Innovative trends and challenges in apparel production - IT applications in capturing motion economy and time measurement, lowering energy consumption and minimizing environmental impact

TEXT BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Chuter A J	Introduction to Clothing Production Management	Blackwell Publishing	1995
2.	K. Sukumar & G.S. Sivakumar	Apparel Quality Control for Garment /Apparel Technology	S.S.M.I.T.T, Students Co - operative Stores Ltd	2007
3.	Seema Kapoor	Apparel Manufacturing Technology	Sonali Publications	2012

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	K. Shridhara Bhat	Production and operations management	Himalaya publishing house	2011
2.	K. Sukumar & G. S. Sivakumar	Garment Technology	S.S.M.Institute of Textile Technology & Polytechnic College	2008
3.	Gordana Colovic	Management of Technology System in Garment Industry	Woodhead Publishing	2010
4.	I. R. Mutusamy & V. Ilango	Technology of fabric manufacture -	S.S.M.I.T.T, Students co - operatives stores ltd	2007

E – Journals

- Autex Research Journal
- Fashion and Textiles
- IndustriaTextila

- Journal of Engineered Fibers and Fabrics
- Journal of Fashion Technology & Textile Engineering
- Journal of Textile and Apparel, Technology and Management
- Textile World
- Trends in Textile Engineering & Fashion Technology
- Journal of Textile Engineering and Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr. R. Radhika

MFD23P01	SEMESTER-I CREATIVE DRAPING PRACTICAL - I	Category	L	T	P	Credit
		Practical		-	90	3

Preamble

This course delves into the art of manipulating fabrics to shape various forms and silhouettes providing hands-on exploration of innovative design possibilities

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Apply intermediate draping techniques to create more complex garment elements, such as collars, cuffs, and flounces.	K2
CLO2	Demonstrate proficiency in basic draping methods, such as basic bodice, skirt, and sleeve draping	K3
CLO3	Analyze and experiment with asymmetrical draping techniques to create dynamic and visually engaging garment silhouettes.	K3
CLO4	Integrate unconventional materials and found objects into draping projects to push creative boundaries	K5
CLO5	Reorganise draping with other design elements, such as surface embellishments and fabric manipulations, to create visually striking garments.	K6

Mapping with Programme outcomes

CLOs	PO1	PO2	PO3	PO4	PO5
CLO1	M	M	S	M	S
CLO2	M	S	S	S	S
CLO3	S	M	S	S	S
CLO4	S	S	S	S	S
CLO5	S	S	S	M	S

S – Strong; M – Medium

Syllabus

- Effect of fabric on forms for skirts - Type of fabric - Wovens, knits, non wovens, non textile - leather, paper, fusion of materials 5 Hours
- Weight of fabric - light weight, medium weight and heavy weight. 5 Hours
- Effect of fabric on forms for skirts - Types of silhouettes - bell and balloon,

circle and triangle.	10 Hours
4. Intermediate draping - Skirts- Kilt and pegged.	10 Hours
5. Intermediate draping- Skirts- Dirndl, yoke with flare and flounces.	10 Hours
6. Intermediate draping - Blouses –Bustier, peasant with incorporation of collar and sleeve by draping technique.	10 Hours
7. Intermediate draping - Blouses – Gibson girl with incorporation of collar and sleeve by draping technique.	10 Hours
8. Intermediate draping - Pants - Harem, hakama and wide leg pants.	10 Hours
9. Advanced draping - Asymmetrical and biased drapes.	10 Hours
10. Advanced draping - Gowns - Shift and empire	10 Hours

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Hisako Sato	Drape Drape 2:Now in English	Laurence King Publishing	2012
2.	Kamal Khurana	Draping and Pattern Making	Sonali Publications	2012
3.	Manmeet Sodhia	Advanced Drafting and Draping	Kalyani Publishers	2014
4.	Karolyn Kiisel	Draping the complete course	Laurence King Publishing.	2020
5.	Connie Amaden-Crawford,	Art of fashion draping	Fairchild Books	2004

E Journals

- Fashion Studies
- Trends in Textile Engineering & Fashion Technology
- Textile World

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, peer learning, demonstration.

Course Designer

Dr. R. Radhika

MFD23P02	SEMESTER-I VIRTUAL DESIGN PRACTICAL - II	Category	L	T	P	Credit
		Practical	-	-	90	3

Preamble

To develop the knowledge on computer aided designing processes providing practical experience in the dynamic realm of virtual design for apparel

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Enumerate user interfaces and understand the basic functionalities of digital design software.	K1
CLO2	Generalise creative ideas and concepts for digital art projects	K2
CLO3	Compute and develop digital art	K3
CLO4	Illustrate digital tools to transform concepts into visual representations that effectively communicate intended messages or emotions.	K4
CLO5	Create compelling narratives and storyboards using digital tools to effectively convey messages or concepts	K6

Mapping with Programme outcomes

CLOs	PO1	PO2	PO3	PO4	PO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	S	S	S	S
CLO4	S	S	S	S	S
CLO5	S	S	S	S	S

S – Strong; M – Medium; L - Low

Syllabus

1. Fabric pattern designing, modification for size. 5 Hours
2. Motif development - Symmetrical / asymmetrical, balanced / unbalanced repeat - arrangements $\frac{3}{4}$ drop, $\frac{1}{2}$ drop, H/V, $\frac{1}{3}$ drop H/V. 10 Hours
3. Motif development - Symmetrical / asymmetrical, balanced / unbalanced repeat – arrangements $\frac{1}{4}$ drop H/V drop reverse, design placements on borders, pallu and all over. 10 Hours
4. Label designing and logo designing for apparel. 5 Hours
5. Fabric lay for kids – marker planning for S/M/L/XL for a particular order. 10 Hours
6. Fabric lay for women – marker planning for S/M/L/XL for a particular order. 10 Hours

- | | |
|--|----------|
| 7. Fabric lay for men – marker planning for S/M/L/XL for a particular order. | 10 Hours |
| 8. Kids wear – creating a design collection for any 3 themes. | 10 Hours |
| 9. Women's wear – creating a design collection for any 3 themes. | 10 Hours |
| 10. Men's wear – creating a design collection for any 3 themes. | 10 Hours |

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Fashion & Arts Communications	Modern Heavy Neck Designs on Transparent Sheets	Fashion & Arts Communications	2007
2.	Fashion & Arts Communications	Modern 50 Large Embroidery Design	Fashion & Arts Communications	2010
3.	Fashion & Arts Communications	Modern Embroidery Designs	Fashion & Arts Communications	2008
4.	Meenakshi Narang	Fashion Technology Hand Book	Asia Pacific business Press Inc	2003

E – Journals

- Art and Design Review
- Fashion and Textiles
- Textile World
- The Textile Association
- Trends in Textile Engineering & Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, peer learning, demonstration.

Course Designer

Dr. R. Radhika

MFD23P03	SEMESTER-I NEW PRODUCT DESIGN DEVELOPMENT – FUNCTIONAL CLOTHING PRACTICAL - III	Category	L	T	P	Credit
		Practical	-	-	90	3

Preamble

This course explores the details of design development and product marketing across diverse sectors, shaping the future of functional and specialized apparel

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand design principles and development processes	K2
CLO2	Interpret specialized fabrics, features, and construction techniques suitable for demanding work environments.	K3
CLO3	Discriminate product development process, including fabric selection, pattern making, prototyping, and fitting sessions.	K4
CLO4	Create innovative designs for industrial corporate wear that blend functionality, comfort, and professionalism	K5
CLO5	Interpret adaptive features and user-centered design principles to create functional and stylish garments.	K6

Mapping with Programme outcomes

CLOs	PO1	PO2	PO3	PO4	PO5
CLO1	S	S	S	S	S
CLO2	S	M	S	S	S
CLO3	S	S	S	S	S
CLO4	S	M	S	S	S
CLO5	S	S	S	S	S

S – Strong; M – Medium; L - Low

Syllabus

- | | |
|---|--------|
| 1. Design development – Industrial corporate wear | 5 Hrs |
| 2. Product development and marketing – Industrial corporate wear | 5 Hrs |
| 3. Design development – Protective/medical work wear | 10 Hrs |
| 4. Product development and marketing – Protective/medical work wear | 10 Hrs |

5. Design development – Military uniform	10 Hrs
6. Product development and marketing – Military uniform	10 Hrs
7. Design development – Sportswear	10 Hrs
8. Product development and marketing – Sportswear	10 Hrs
9. Design development – Clothing for special needs	10 Hrs
10. Product development and marketing – Clothing for special needs	10 Hrs

Design development includes:

- Theme/ Topic selection
- Purpose/ use of design
- Research/ Review of literature
- Flat sketch development
- Selection of fabric, colours, trims and accessories

Product development and marketing includes:

- Proto type/ model development
- Preparation of mood board and client board
- Preparation of look book/ promotional design
- Development of business plan
- Pricing and Marketing strategy

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Manmeet Sodhia	Design Studies	Kalyani Publishing	2015
2.	Singh	Fabric Studies	Kalyani Publishing	2009
3.	M.G. Mahaderan	Dictionary of Textiles	Abhishek Publications	2012
4.	Usha Kulshrestha & Radha Kashyap	Clothing Behavior	Pointer Publishers	2007
5.	Dr. Neelima	Fashion and Textile Design	Sonali Publications	2009
6.	Kamal Khurana	Fabrics for fashion and textile design	Sonali publications	2012

E – Journals

- Autex Research Journal
- Fashion and Textiles
- International Journal of Textile Science
- Journal of Fashion Technology & Textile Engineering
- Journal of Textile and Apparel, Technology and Management
- Journal of Textile Engineering and Fashion Technology

- Textile World
- Textiles
- Technical Textile

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, peer learning, demonstration.

Course Designer

Dr. R. Radhika



**PSGR
Krishnammal College for Women**



**DEPARTMENT OF COSTUME AND APPAREL
DESIGN PROGRAMME: M. Sc FASHION AND
APPAREL DESIGN**

**CHOICE BASED CREDIT SYSTEM
& OUTCOME BASED EDUCATION
SYLLABUS
(Semester – II)**

**M. Sc FASHION AND APPAREL DESIGN
2023-2025 Batch**



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- **PLO5:** Apply knowledge and skill in the fashion field and promote entrepreneurship.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

The students at the time of graduation

- **PSO1:** Graduates can function independently with their innovative and creative skills
- **PSO2:** Graduates will be able to meet the current requirements of apparel Industries
- **PSO3:** Graduates can undertake research /projects for new product development



DEPARTMENT OF COSTUME AND APPAREL DESIGN
CHOICE BASED CREDIT SYSTEM & OUT COME BASED EDUCATION
SYLLABUS & SCHEME OF EXAMINATION
MASTER OF FASHION AND APPAREL DESIGN – 2023-2025 BATCH

SEM	Subject Code	Title of the Paper	Instruction hours/week	Contact hours	Tutorial Hours	Duration of Examination	Examination Marks			Credits
							C A	ESE	TOTAL	
II	MFD2304	Technical Textiles and its application (Paper – IV)	5	73	2	3	25	75	100	4
	MFD2305	Computer Integrated Manufacturing in Apparel Industry(Paper - V)	3	43	2	3	25	75	100	3
	MFD2306	Apparel Manufacturing Machinery (Paper - VI)	5	73	2	3	25	75	100	4
	MFD23P04	Digital Portfolio I –(Practical - IV)	5	75	-	3	25	75	100	3
	MFD23P05	Accessories for Fashion Ensemble (Practical - V)	5	75	-	3	25	75	100	3
	MFD23E01/ MFD23E02/	Elective I 3. Global Marketing and sourcing Strategies /	3	43	2	3	25	75	100	

[illegible]

MFD2304	SEMESTER – II TECHNICAL TEXTILES AND ITS APPLICATION PAPER– IV	Category	L	T	P	Credit
		Theory	73	2	-	4

Preamble

This course introduces key concepts of fibers used in technical textiles and its applications, paving the way for a deep understanding of the dynamic and evolving landscape of technical textiles in diverse industries

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define technical textiles and differentiate them from conventional textiles	K1
CLO2	Explain the unique characteristics and properties that make technical textiles suitable for specialized applications.	K2
CLO3	Identify the specific requirements and challenges associated with each type of technical textiles.	K4
CLO4	Explore the use of technical textiles in environmental applications, such as filtration, waste management, erosion control, and water purification	K4
CLO5	Analyse how manufacturing techniques influence the properties and performance of technical textiles	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	M	S	S
CLO2	S	S	S	S	S
CLO3	M	S	S	S	S
CLO4	M	M	M	S	S
CLO5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

UNIT I

14 Hours

Technical textiles - Introduction, definition, scope, classifications, applications, growth and development - future of technical textiles, global technical textiles market, Indian technical textiles market. Technical fabric structure – woven and non - woven. Electrospinning, 3d weaving and textile applications. Upcoming techniques - fiber, yarn and fabric formation. Centre of excellence for technical textiles

UNIT II

15 Hours

Industrial and package textiles - Industrial textiles - introduction, definition, types – decatizing cloth, bolting cloth, absorbent glass mat battery separators, cigarette filter. Indu-tech products - coated abrasives conveyor belts, drive belt, ropes and cordages, printed circuit boards, computer printer ribbon, paper making fabrics - filtration products. Package textiles - polyolefin woven sacks, flexible intermediate bulk containers (FIBC), tarpaulins, leno bags, lamination, jute hessian and sacks, soft luggage products, teabags, carpet backing cloth. Textile reinforced composite materials and their applications.

UNIT III

14 Hours

Geo and filtration textiles - Geo textiles - Introduction, fibers used, types, functions, properties, characteristics and applications in its field, structure and performance, non-polymeric fibres, high performance synthetic fibers, newer fibers. Geosynthesis - essential properties of geo-textiles, geo-textiles for soil strengthening, standards for geo-textiles. Filtration textiles- introduction, nano-technical fibres, filters for air pollutants, pollutant capture mechanism, dust collection, fabric construction, solid liquid separation.

UNIT IV

15 Hours

Protective textiles, Indu tech and agro textiles - Introduction, fibers used, types, functions, properties, characteristics and applications – fire protective clothing, heat-resistant garments, waterproof materials, ballistic resistant vests, biological and chemical vests, military protective clothing. Smart polymers used in protective clothing. Indutech - introduction, fibers used types, functions, properties, characteristics and applications in its field. Agro textiles- definition, types, applications - greenhouse cover, capillary mats, fishing nets, nets for plants, root-less plants and protecting grassy areas, sun-screens, wind-shields and anti-bird nets.

Medical textiles, sports textiles, smart and intelligent textiles – Medical textile – Introduction – features - classifications and applications - Sports textiles - Introduction, fibers used, types, functions, properties, characteristics and applications of sports tech. Smart and intelligent textiles – classification - active smart, passive smart and very smart textiles, phase change materials, shape memory polymers, chromic and conductive materials and its applications in various wearable technology.

TEXT BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Gopalakrishnan D & P. Vinayagamurthi	Technical Textiles	Daya Publishing House	2020
2.	Dr. S. Periyasamy Dr. G. Thilagavathi	. Industrial Textiles	Wood head Publishing India	2020
3.	Robert M Koerner	Designing with Geosynthetics	Prentice hall Inc	2012
4.	Gopalakrishnan. D & Karthick .T	Home Textiles	Daya Publishing House	2020

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	K.P. Chellamani, Debasis Chattopadhyay	Yarns and technical textiles	The South India Textile Research Association	1999
2.	Anita Tyagi	Textiles for Apparel and Home Furnishings,	Sonali Publications	2011
3.	D. Jothi	Textile web Processing	S.S.M.I.T.T, Students Co - operative Stores Ltd	2011

E – Journals

- Autex Research Journal
- International Journal of Textile Science
- Journal of Engineered Fibers and Fabrics
- Journal of Fashion Technology & Textile Engineering
- Journal of Textile and Apparel, Technology and Management
- Technical Textile
- Textile World
- Textiles
- Journal of Textile Engineering and Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr.R.Radhika

MFD2305	SEMESTER - II COMPUTER INTEGRATED MANUFACTURING IN APPAREL INDUSTRY PAPER– V	Category	L	T	P	Credit
		Theory	43	2	-	3

Preamble

This course offers a comprehensive exploration of design software for woven, knitted, and printed textiles in computer-aided fashion design systems and the usage of CAD and CAM systems in apparel industries

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the fundamentals of computer integrated manufacturing	K1
CLO2	Define the concept of CIM and its relevance in modern apparel manufacturing.	K2
CLO3	Acquire knowledge on the E-prototyping for apparels	K3
CLO4	Explore CAD and CAM systems in apparel design and pattern making	K5
CLO5	Evaluate the various automations in manufacturing and management systems available in apparel industry	K6

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	M	S	S	S
CLO3	S	S	S	S	S
CLO4	M	M	M	M	M
CLO5	S	S	S	S	M

S- Strong; M-Medium

Syllabus

UNIT I

9 Hours

Introduction to the operation of design software for woven, knitted and printed textiles. Computer aided fashion design system - Tools, manipulating techniques. Knowledge based system - Introduction to image processing and imaging system - Fabric and sewing defect identification using image processing - Artificial neural networks.

UNIT II**9 Hours**

3D body scanning- digitizing- grading and lay planning system - Introduction to graphic interface of the software-tools and functions used for pattern making, grading and marker planning.

UNIT III**8 Hours**

Preparation of virtual dummies, texture mapping, 2D and 3D draping, 3D modeling, E-fit analysis, animation, prototyping – virtual and rapid. Made to measure systems. Application of Artificial Intelligence - Augmented reality and virtual reality

UNIT IV**9 Hours**

Applications of computer integration in fabric cutting, spreading and labeling machines. Computer aided special purpose sewing machine with control panels – pre-programmed options. Computer controlled embroidery machines. Digitalised colour communication - ZED

UNIT V**8 Hours**

Application of electronically transfer documents - EDI - selection of line - control system - data base management system. Automatic material handling, storage, tracing and retrieval system. Applications of e-commerce and management information system -MIS in apparel industry, supply chain planning, computerized color matching system.

TEXT BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Henry Webber	Computer – Integrated Manufacturing	NY Research Press	2020
2.	Alison Beazley & Terry Bond	Computer aided pattern design and product development	Wiley-Blackwell	2009
3.	Jinlian Hu	Computer Technology for Textile and Apparel	Woodhead Publishing	2011

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	S.Sugumar& P Muthu kumarasamy	A computerized system for marker making in garment industry	The South India Textile	2009

			Research Association	
2.	Kevin Tallon	Digital fashion illustration	Batsford publications	2008
3.	Tracy Diane and Tom Cassidy	Colour forecasting	Blackwell publishing	2005
4.	V. Ramesh Babu	Industrial Engineering in Apparel Production	WPI Publishing	2012
5.	N.Vasugi raja	Computer applications in apparel industry	Pranav Publication	2011

E -Journals

- Fashion and Textiles
- Industria Textila
- Journal of Fashion Technology & Textile Engineering
- Textile World
- Textiles
- Journal of Textile Engineering and Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr. R. Radhika

MFD2306	SEMESTER – II APPAREL MANUFACTURING MACHINERIES PAPER– VI	Category	L	T	P	Credit
		Theory	73	2	-	4

Preamble

This course provides in-depth insights into the fundamentals of machineries used in the apparel manufacturing industries

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the significance of machinery in the apparel production process and its impact on efficiency and product quality	K1
CLO2	Explain the functions and applications of cutting machinery in accurately preparing fabric panels for sewing	K2
CLO3	Interpret the role of different sewing machine attachments in enhancing sewing efficiency and accuracy.	K3
CLO4	Identify and use specialized sewing machines for operations such as buttonholing, button attaching, and zippers.	K4
CLO5	Develop effective communication skills to explain machinery operations and functions to both technical and non-technical audiences	K5

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	M	S	S	S
CLO3	S	S	S	S	S
CLO4	M	M	M	M	M
CLO5	S	S	S	S	M

S- Strong; M-Medium

Syllabus

UNIT I

14 Hours

Spreading machines - Types of fabrics – one way – two way fabrics – their effect on spreading. Methods of fabric spreading, spreading equipments – computerized spreaders. Marker planning,

marker efficiency, factors affecting marker efficiency. Marker duplicating methods – computer aided marker making.

UNIT II

15 Hours

Cutting machines - Introduction to cutting machines. Types and functions of cutting machines – straight knife, round knife, band knife cutting machines. Notches, drills, die cutting machines, computerized cutting machines. Maintenance of cutting machines. Common defects in cutting and their remedies, latest developments.

UNIT III

15 Hours

Sewing machine - basic parts of sewing machine – primary and auxiliary parts and their functions. Bobbin case/bobbin hook, throat plate – take up devices – tensioners – feed dog – pressure foot. Types of needles – parts of needles and their function. Adjustments of stand height – pedal – needle bar – stitch length selection – feed timing– needle and bobbin thread tension – stitch cycle timing diagram. Common defects and remedies. Special attachments in sewing machines – guides, folders, stackers, trimmers, ziggers

UNIT IV

15 Hours

Multithread sewing machines - over lock machines - types of over lock machines. Parts and their functions. Threading diagram for over lock machines. Stitch cycle diagram for over lock machines – adjustment of needle height, feed dog height, angle, differential feed ratio and position of upper and lower knives, loopers. Flat lock machines – types, parts and their functions. Threading diagram of flat lock machines – stitch cycle diagram. Adjustment of parts – needle height, feed dog height, differential feed ratio, loopers. Maintenance of flat lock machines, defects and remedies.

UNIT V

14 Hours

Special purpose sewing machines – Introduction to different special purpose sewing machines. Basic working of feed of Arm, button hole sewing, button sewing, bar tack, blind stitch machines. Embroidery sewing machines. Sewing machine maintenance – maintenance schedule for various machines, maintenance audit. Latest developments in apparel manufacturing machineries

TEXT BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Rathinamoorthy R	Apparel Machinery and Equipment	Woodhead Publishing	2015
2.	R. M. Jones	The Apparel Industry	Wiley-Blackwell	2006
3.	CARR & LATHAM'S	Technolgy of Clothing Manufacture	Wiley-Blackwell	2008

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	K. Sukumar, G.S. Sivakumar	Clothing Machinery Equipments	S.S.M. Institute of Textile Technology & Polytechnic College	2008
2.	Seema Kapoor	Apparel manufacturing technology	Sonali publications	2009
3.	Gardana colovic	Management of Technology Systems in Garment Industry	Woodhead Publishing Limited	2010
4	V. Ramesh babu	Industrial engineering in apparel production	WPI Publishing	2012

E -Journals

- Fashion and Textiles
- Industria Textila
- International Journal of Textile Science
- Journal of Fashion Technology & Textile Engineering
- Journal of Textile Engineering and Fashion Technology
- Journal of Textile and Apparel, Technology and Management
- Textile World

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr. R. Radhika

23MFDP04	SEMESTER – II DIGITAL PORTFOLIO – I PRACTICAL – IV	Category	L	T	P	Credit
		Practical	-	-	75	3

Preamble

This course helps to explore the intricacies of planning stylized illustrations, surface embellishments, and accessory designs encompassing creative graphic work and photography.

Course Learning Outcome

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand strategies for publication in newspapers, magazines, and competitive shows.	K1
CLO2	Create a comprehensive portfolio	K3
CLO3	Prepare detailed craft documentation that showcases the technical aspects of the design collection	K3
CLO4	Demonstrate ethical and professional conduct in the fashion industry, adhering to industry standards and practices	K3
CLO5	Develop a professional design philosophy towards fashion	K5

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	S	S	S	S
CLO4	S	S	S	S	S
CLO5	S	S	S	S	S

Syllabus

S- Strong; M-Medium

1. Preparing the resume stating your design philosophy to express your attitude towards fashion. 5 Hours
2. Planning all the stylized illustrations, surface embellishment, accessory designs, creative graphic work and photography. 15 Hours

3. Presenting the design collection by identifying the target customer, design requirements and pricing.

30 Hours

- Resume
- Inspiration sheet\story board.
- Colour board with fabric swatches.
- Client profile and indication of the market\country.
- Design sheets – illustration boards.
- Flat working drawings, magnification.
- Specification sheet

4. Preparation of the craft documentation.

5 Hours

5. Preparing for the publications in newspaper/ magazines/competitive shows, free-lance assignments.

20 Hours

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	M.Kathleen Colussy & Steve Greenberg	Rendering Fashion ,Fabric& Prints	Pearson Prentice Hal	2007
2.	Kevin Tallon	Digital fashion illustration	Batsford publications	2008
3.	Sarah E Bradock Clarke & Jane Harris	Digital Visions for Fashion + Textile : Made in Code,	Thames and Hudson	2012
4.	Paco Asensio	Modern fashion illustration	Maomao publication	2010
5.	Naoki Watanabe	Contemporary fashion illustration techniques	Rockport Publication	2009

E – Journals:

- Fashion Studies
- Textile World
- The Textile Association
- Trends in Textile Engineering & Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, peer learning, demonstration.

Course Designer

Dr. R. Radhika

MFD23P05	SEMESTER – II ACCESSORIES FOR FASHION ENSEMBLE PRACTICAL – V	Category	L	T	P	Credit
		Practical	-	-	75	3

Preamble

This course helps to explore the art of designing and crafting a variety of fashion accessories, culminating in a portfolio presentation of restyled creations.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the fundamental principles of accessory design, including proportion, balance, and aesthetics.	K1
CLO2	Utilize textiles and materials to construct head, face, and neck accessories that align with design concepts.	K3
CLO3	Apply creative thinking to repurpose and upcycle materials for unique accessory creations.	K3
CLO4	Design and construct accessories like gloves, belts, suspenders, and shoes that complement clothing ensembles.	K5
CLO5	Assess hands-on skills in cutting, sewing, assembly, and finishing techniques specific to accessory construction.	K6

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	S	S	S	S
CLO4	S	S	S	S	S
CLO5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

Designing, rendering textures, constructing and making selected items

- | | |
|---|---------|
| 1. Head, face and neck accessories – Scarf, hat or cap | 5 Hours |
| 2. Head, face and neck accessories – Mask, stole or tie | 5 Hours |

3. Hand, waist and foot accessories – Gloves, belt or suspenders 7 Hours
4. Hand, waist and Foot accessories – Shoe or slipper 8 Hours
5. Personal accessories – Watch, bag 10 Hours
6. Personal accessories – Pouch, wallet 5 Hours
7. Fashion Jewellery – Clay/fabric 8 Hours
8. Fashion Jewellery – Paper, metal 7 Hours
9. Design development – Any one recycled/biodegradable/sustainable accessory with textile material 10 Hours

- Research
- Finalization of theme
- Sourcing
- Finalization of designs
- Colour board
- Mood board

10. Product development - Any one recycled/biodegradable/sustainable accessory with textile material 10 Hours

- Construction of products
- Photoshoot
- Compose the above details as portfolio sheets

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Patrick John Ireland	New encyclopedia of fashion details	Om book international	2008
2.	Anmol Roy	Fashion Designing of Clothes and Ornaments	Sonali Publications	2011
3.	Aldred F. Basker	Ornamentation and textile design	Abhishek Publications	2009
4.	Jay Diamond & Ellen Dimaond	Fashion apparel, accessories, & home furnishings	Dorlin indersley (India) pvt ltd	2006
5.	Bina Abling & Phyllis Tortora	The Fairchild Encyclopedia of accessories,	Om Book Service	2003
6.	Chandini Kakar	Encyclopedia of	Indica Publishers	2005

		fashion accessories		
7.	Kamal Khurana	Merchandising of Fashion Products	Sonali Publications	2012
8.	Anita Tyagi	Ornamentation and Textile Design	Sonali Publications	2011
9.	Chandini Kakar	Best out of Waste (Garments)	Indica Publishers	2005

E – Journals

- Fashion Studies
- Textile World
- Trends in Textile Engineering & Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, peer learning, demonstration.

Course Designer

Dr. R. Radhika

MFD23E01	SEMESTER – II GLOBAL MARKETING AND SOURCING STRATEGIES	Category	L	T	P	Credit
		Theory	43	2	-	3

Preamble

This course covers the concept of global market dynamics, competitive analysis, customer segmentation, procurement planning and the principles of sourcing strategy.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand global market dynamics	K1
CLO2	Analyze sourcing options, including off shoring, near shoring, and on shoring, based on factors like cost, quality, and supply chain resilience	K4
CLO3	Explain the complexities of global markets, including cultural, economic, political, and technological factors that impact international business	K5
CLO4	Formulate effective global marketing strategies	K5
CLO5	Evaluate legal and regulatory challenges related to international sourcing, including trade agreements, import/export regulations, and intellectual property rights.	K6

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	M	S	M	S
CLO3	S	S	M	S	M
CLO4	S	S	S	S	S
CLO5	S	M	S	S	S

S- Strong; M-Medium

Syllabus

UNIT I

9 Hours

Introduction to global marketing – Drivers towards globalization – Factors influencing global marketing – Economic, social and cultural. Limitations to global marketing. Global

competitive analysis – competitive environment, country specific advantages, firm specific advantages. Environmental, social and governance – ESG, Sustainable development goals – SDG.

UNIT II

9 Hours

Global customers – Global segmentation and positioning- market segments, global product positioning, positioning a new brand, positioning a global brand. Global product and services – Global product lines, services, service quality, globalization of services. Distribution strategies, advertising, promotion. Organizing for global marketing – Organizational structure, management systems, people and organizational culture.

UNIT III

9 Hours

Sourcing goals and objectives. Principles of sourcing strategy. Plan for the procurement of materials as per garment design requirements – out sourcing- source selection – contracts and incentives, supplier strategies- procure materials from national and international suppliers related to fabrics, trims and accessories. Supervise and evaluate performance of subordinates. Maintain records about procurement of materials. Sourcing data and reports.

UNIT IV

8 Hours

Sourcing requirements – maintain health, safety and security in the sourcing department. Comply with industry, regulatory and organizational requirements, sourcing design elements. Risks and rewards of multiple sourcing. Capacity constraints and pricing in sourcing markets. LIC selection and incentives for innovation – Yard stick contracts. Case studies in sourcing.

UNIT V

8 Hours

Growth of markets – developed and under developed countries. Issue of trade cycles. Rise of under developed and developing countries. Global marketing case studies.

Text books

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Warren J Keegan	Global Marketing Management	Prentice Hall of India	2017

Reference books

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Mike Easey	Fashion Marketing	Blackwell Publishing oxford	2009
2.	Manmeet Sodhia, Pooja Chatley	Fashion Marketing And Merchandising	Kalyani Publishers	2003
3.	Pingali Vengopal	Marketing Management	Response Books	2010
4.	Sheshadri M.S	Apparel Marketing & Merchandising	M S Publications	2002

E – Journals

- **IndustriaTextila**
- Journal of Fashion Technology & Textile Engineering
- Journal of Textile and Apparel, Technology and Management
- Textiles
- The Textile Association
- Journal of Textile Engineering and Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment,quiz, peer learning, seminar, demonstration.

Course Designer

Dr. R. Radhika

MFD23E02	SEMESTER – II FUNDAMENTALS OF INTIMATE APPARELS	Category	L	T	P	Credit
		Theory	43	2	-	3

Preamble

This course provides an in-depth knowledge on intimate apparel designing and production processes

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Explain the types of intimate apparels, including nightwear and underwear	K1
CLO2	Analyze technical properties of intimate apparels	K4
CLO3	Analyze the criteria for selecting suitable fibers, fabrics, and designs in intimate apparel production	K4
CLO4	Consider design elements, measurements, and construction techniques specific to each apparel type	K4
CLO5	Assess the functional requirements of intimate apparels, including comfort, sewability, appearance retention, durability, and aftercare.	K6

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	M	S	M	S
CLO3	S	S	M	S	M
CLO4	S	S	S	S	S
CLO5	S	M	S	S	S

S- Strong; M-Medium

Syllabus

UNIT I

9 Hours

Intimate apparels – definition – types – night wear, under wear. Classification of kids, women's and men's Intimates. Quality requirements for selecting suitable fibers, fabrics, designs for intimate apparels. Physical and physiological health effects of intimate apparel. Latest finishes for intimate apparels.

UNIT II

8 Hours

Men's intimate apparels - introduction, design and development- measurements - Step by step drafting procedure and construction sequence - long johns, vests, briefs, trunk, pyjama and bath robe.

UNIT III

8 Hours

Women's intimate apparels - introduction, design and development - measurements – step by step drafting procedure and construction sequence - waist petticoat, bra, panty, camisole, and night dress.

UNIT IV

9 Hours

Intimate apparel accessories and production technology - accessories-bra wire, hook and eye tape, ring and slider, buckle, plastic bone, elastics, and threads used for intimate apparel. Principles, methods, technical aspects and controls of lamination, moulding and seamless knitting technology for production of intimate apparels.

UNIT V

9 Hours

Performance evaluation of intimate apparel - functional requirements – comfort – sewability – appearance - retention – durability - after care. Performance evaluation – thermal properties – moisture permeability – liquid transport properties – low stress mechanical properties – dimensional stability and skewness stability – colour fastness – wearer trials. Requirements for engineering intimate apparels – Fibre and yarn characteristics, fabric composition, thickness structure.

TEXT BOOK

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Lynn Nottage	Intimate Apparel / Fabulation	Theatre Communications Group, USA	2006

REFERENCE BOOK

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Ann Haggard	Pattern Cutting for Lingerie, Beachwear and Leisurewear	Blackwell Publishing	2008

E – Journals

- Fashion Studies
- Industria Textile
- Trends in Textile Engineering & Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar, demonstration.

Course Designer

Dr. R. Radhika

MFD23E03	SEMESTER – II SUSTAINABLE APPAREL DESIGN AND DEVELOPMENT	Category	L	T	P	Credit
		Theory	43	2	-	3

Preamble

This course covers the fundamental concepts and practices shaping eco-friendly and socially responsible approaches in the textile and fashion industries

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the basic concepts of sustainable development and its relevance in the apparel industry.	K1
CLO2	Identify factors influencing sustainability, including ecology, economy, and culture.	K2
CLO3	Recognize the role of national and international regulating organizations, such as WRAP, in promoting sustainability in the apparel industry.	K2
CLO4	Analyze sustainable factors involved in yarn and fabric manufacturing, considering waste management and environmental considerations	K4
CLO5	Examine developments in natural finishing techniques for sustainable textiles	K3

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	M	S	S
CLO2	S	S	S	S	S
CLO3	M	S	S	S	S
CLO4	M	M	M	S	S
CLO5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

UNIT I

10 Hours

Introduction -The basic concepts of sustainable development, difference between chemical and green process in manufacturing, rules/ recommendations for using chemicals, raw materials and waste management for sustainable textiles and clothing. Definition of sustainability – need for sustainability. Factors influencing sustainability. Impact of ecology, economy, and culture on sustainability. Product life cycle, product design sustainability using low – impact materials, recyclable material content. Sustainable fibres – organic cotton, recycled polyester, alternative sustainable fibers.

UNIT II

8 Hours

Sustainable textile production - Sustainable factors in yarn and fabric manufacturing, waste management in spinning and fabric manufacturing, key environmental drivers in the textile industry- legislation, eco labels - Environmental management system - EMS, retailers, green consumers, pressure groups, controlled colouration.

UNIT III

8 Hours

Sustainability in textile processing - Natural colorants and recent development. Bio-processing of textiles - bio desizing, bio scouring, bio bleaching, bio polishing, bio stoning, enzymatic degumming and enzymatic retting. Developments in natural finishing.

UNIT IV

8 Hours

Sustainable fashion design process - Production of sustainable fashion- the phases of fashion design and production, fashion designers role, sustainable strategies in design houses, link sustainable strategies with the fashion design and production process, zero waste design practice, textile recycling – Second hand clothing, redesigning and case studies.

UNIT V

9 Hours

Sustainable fashion trend - Sustainable fashion concepts – new fashion ethic and aesthetics, reversing fashion consumption, locally made and globally relevant, mega demand - negative demand, sharing and servicing. Fast fashion vs slow fashion, new normal, sustainable fashion supply chain, fashion logistic, sustainable clothing care. Role of National and International regulating organizations in sustainability – Worldwide responsible accredited production (WRAP), mandatory requirements – benefits to company, labor and society.

TEXT BOOK

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	M. Parthiban, M. R. Sri krishnan P. Kandhavadivu	Sustainability in Fashion and Apparels: Challenges and Solutions	Woodhead publications	2018

REFERENCE BOOK

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Leslie Davi	sustainability and social change in fashion	Bloomsbu	2019

E -Journals

- Fashion and Textiles
- Fashion Studies
- Industria Textile
- International Journal of Textile Science
- Textiles
- Journal of Fashion Technology & Textile Engineering
- Journal of Textile and Apparel, Technology and Management
- Journal of Textile Engineering and Fashion Technology
- Trends in Textile Engineering & Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment,quiz, peer learning, seminar, demonstration.

Course Designer

Dr. R. Radhika

23MFDA1	SEMESTER-II FASHION RETAIL MANAGEMENT	Category	L	T	P	Credit
		Theory	60	-	-	4

Preamble

This course navigates the complexities of retail market segmentation, understanding criteria, types, and market targeting, while focusing on merchandise management, product, brand management, and retail planning

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand retailing concepts and functions	K1
CLO2	Recognize the importance of location decisions in retailing and identify determining factors	K2
CLO3	Interpret market segmentation and targeting	K3
CLO4	Analyse influences on retail pricing strategy, pricing objectives, and approaches	K4
CLO5	Explain the significance of product and brand management in the context of retailing	K6

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	M	S	S	S
CLO3	S	S	S	S	S
CLO4	M	M	M	M	M
CLO5	S	S	S	S	M

S- Strong; M-Medium

Syllabus

UNIT I

12 Hours

Retail organisation - Introduction, definition, characteristics and functions of retailing, retailers, retailing channels, retail strategy. Structure of retail organisation, retail units, merchandise mix, customer interaction, organized retailing, and retail formats,

geographical markets, retailing in rural India, vertical marketing system, challenges in retail business.

UNIT II

12 Hours

Retail market segmentation - segmentation- definition and benefits - segmenting, targeting and positioning. Criteria for segmentation, types of markets, dimensions for segmentation, types of segmentation. Market targeting, customer profile, survey of buyer's intentions. Application of augmented reality and virtual reality in fashion

UNIT III

12 Hours

Merchandise management - product management, brand management and retailing, merchandise management, model stock plan, constraining factors, types of suppliers and selection criteria, category management, merchandise management planning in retail segment

UNIT IV

12 Hours

Retail location and space management - location decision - importance, levels and determining factors, types of location, types of consumer goods and location decision, site selection analysis, atmospherics, store space management, retail selling tools, colour planning, physical materials in store designing, atmospherics in the context of internet retailing. Online retailing, E - commerce

UNIT V

12 Hours

Retail pricing and promotion strategy - influences on retail pricing strategy, development in retail prices, retail pricing objectives, retail pricing approaches and strategies, consumer responsiveness to prices, role of price elasticity and sensitivity, profitability, promotion mix selection, advertising, media selection, sales promotion, personal selling and publicity. RFID for inventory management.

TEXT BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1.	Barry Berman	Retail Management	Pearson Education	2017
2.	Philip Kotler	Marketing Management	Pearson Education	2017
3.	V.S. Ramasamy & S. Nama kumari	Marketing Management	Pearson Education	2010

E – Journals

- Journal of Textile and Apparel, Technology and Management
- Journal of Textile Engineering and Fashion Technology
- The Textile Association
- Trends in Textile Engineering & Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar, demonstration.

Course Designer

Dr.R.Radhika



PSGR
Krishnammal College for Women



DEPARTMENT OF COSTUME AND APPAREL DESIGN

PROGRAMME: M.Sc. FASHION AND APPAREL DESIGN

CHOICE BASED CREDIT SYSTEM (CBCS)&

LEARNING OUTCOMES- BASED CURRICULAR FRAMEWORK (LOCF)

(SEMESTER –III)

**M.Sc. FASHION AND APPAREL DESIGN 2023-
2025 Batch**



PROGRAMME LEARNING OUTCOMES (PLO's)

After completion of the programme, the student will be able to

- **PLO1:** Understand diverse cultural influences and market demands of apparel industry
- **PLO2:** Create innovative functional and aesthetic apparels and accessories.
- **PLO3:** Design apparels with advance digital tools and technologies
- **PLO4:** Research and analyze textile and fashion trends
- **PLO5:** Apply knowledge and skill in the fashion field and promote entrepreneurship.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

The students at the time of graduation

- **PSO1:** Graduates can function independently with their innovative and creative skills
- **PSO2:** Graduates will be able to meet the current requirements of apparel Industries
- **PSO3:** Graduates can undertake research /projects for new product development



**M.Sc. FASHION AND APPAREL DESIGN (2023-2025 BATCH
& ONWARDS)**

**CHOICE BASED CREDIT SYSTEM (CBCS)&LEARNING OUTCOMES- BASED CURRICULAR
FRAMEWORK (LOCF)
(SEMESTER –III)**

Programme and Branch M.Sc. FAD

Syllabus& Scheme of Examination 2023-2025 Batch & Onwards

SEMESTER	Course Code	Title of the Course	Course type	Instruction	Contact hours	Tutorial Hours	Duration of Examination	Examination Marks			Credits
								CA	ESE	TOTAL	
III											
II-III	MFD23CE	Coursera Digital Fashion Management	DSE	3	45	-	-	100	-	100	3
	MFD2307	Textile and Apparel Testing	CC	4	58	2	3	25	75	100	4
	MFD2308	Apparel Quality Standards and Specification	CC	4	58	2	3	25	75	100	4
	MFD23P06	3D Apparel Design and Modelling Lab	CC	5	75	-	3	25	75	100	4
	MFD23P07	Textile and Apparel Testing Lab	CC	6	90	-	3	25	75	100	4
	MFD23E04/ MFD23E05/ MFD23E06	Elective II Nano Textiles/ Protective Textiles- Health Care Application/ Compliance Standards in Apparel Industry	DSE	3	43	2	3	25	75	100	3
	MFD23S1	Special Course Research Methodology and Statistics	GE	3	43	2	3	-	100	100	2

	MFD23COM	Comprehensive Exam (Self-study)	GC	-			-	-	100	100	Gr
I-III	17MONL1	Online Course 1 #	ACC	-	-	-	-	-	-	-	Completion Certificate
	NM22CS2	Cyber Security	AECC	2	30	-	-	100	-	100	Gr
	MFD23INST1	Internship	DSE	15days Internship Training in Apparel Industry						100	Gr

DSE-Coursera **CC**-All core courses **DSE**- Elective in SEM III & IV Project

GE- IDC & Research Methodology **GC**- Comprehensive examination

ACC - Online course # **DSE**-Filed work /Institutional Training

CA – Continuous Assessment **ESE** - End Semester Examination **Gr**-Grade

Coursera Course: Digital Fashion Management/ MFD23CE

S.No	Topics of the course	Duration Hours	Link of the course
1	Digital Fashion Industry	16	https://www.coursera.org/search?query=digital%20fashion%20mindset
2	Digital Fashion Reality	17	https://www.coursera.org/specializations/digitalfashioninnovation
3	Digital Fashion Mindset	16	https://www.coursera.org/learn/digital-fashion-mindset/home/module/1

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD2307	TEXTILE AND APPAREL TESTING	Theory	58	2	-	4

Preamble

This course helps to explore the methodologies, standards, and technologies employed in textile and apparel testing

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO NUMBER	CLO STATEMENT	CLO LEVEL
CLO1	Explain the importance and types of textile testing	K2
CLO2	Demonstrate different methods, standards, principles and working of instruments used	K3
CLO3	Examine advanced instrumentation and computerized testing systems	K4
CLO4	Evaluate yarn and fabric properties	K6
CLO5	Evaluate and analyse the effects of various parameters affecting test results	K6

Mapping with Programme Learning Outcome

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	M	S	S	S
CLO2	M	M	S	S	S
CLO3	M	M	S	S	S
CLO4	M	M	S	S	S
CLO5	M	M	S	S	S

S- Strong; M-Medium

Unit- I

11 Hours

Textile testing – definition – objectives, types – destructive and non-destructive. Selection of samples for testing: fiber - zoning, core sampling, random draw and cut square methods, yarn – random sampling and fabric sampling. Standard atmosphere for testing - measurement of moisture regain -conditioning oven & shirley moisture meter. Preparation of samples for testing: conditioning and pre-conditioning. Sources of textile testing standards: ISO, BIS, BSI, AATCC, ASTM, ANSI.

Unit-II**11 Hours**

Conventional testing methods - cotton fiber length - baer sorter, fineness – sheffield micronaire, maturity - caustic soda swelling, strength - pressley bundle strength tester and stelometer. Determination of trash and lint in cotton - shirley trash analyser. Computerized testing methods - HVI, AFIS, cotton scope, MDTA4

Unit- III**12 Hours**

Yarn numbering systems - direct and indirect, conversion of count from one system to another, instruments for count determination – wrap reel and balance, quadrant balance, beesley balance. Yarn strength testing - Single yarn strength tester – UT J, UT R, lea strength tester. Yarn twist - definition, direction of twist, twist multiplier, measurement of yarn twist. Yarn evenness - classification of variation, methods of measuring evenness, Uster evenness tester- UT 6. Yarn faults - classification-Uster classimat. Yarn hairiness.

Unit- IV**12 Hours**

Physical parameters: length, width, count (EPIxPPI), crimp, weight (GSM), cover factor, thickness, air and water permeability, fabric dimensional stability to domestic washing and drying. Mechanical parameters – tensile strength, tearing strength, bursting strength, peel bond strength. Handle and comfort parameters - fabric abrasion, pilling, drape, stiffness, crease resistance /crease recovery, sensory testing, thermo-physiological testing, thermal comfort, FTT – fabric touch tester.

Unit- V**12 Hours**

Fabric flammability testing - vertical and inclined plane. Colour fastness - laundering, dry cleaning, crocking, perspiration, sunlight and hot pressing and tests for natural dyes. Seam testing - seam strength, seam slippage. Accessories testing - zipper, buttons, sewing thread. Testing of linings, interlinings, and fusible interlinings

Text Books :

S.NO	Name of the Authors	Title of the book	Publishers	Year and Editionn
1	Raul Jewel	Textile Testing 5	A P H Publishing Corporation	2005,1st Edition,
2	Booth J E	Principles Of Textile Testing	CBS Publishers and Distributors Pvt Ltd	1996,3 rd Edition
3	P.Angappan, R. Gopalakrishnan	Textile Testing 5	S.S.M.Institute of Textile Technology	1997

Reference Books:

S.NO	Name of the Authors	Title of the book	Publishers	Year and Edition
1	Ahmad	Advanced Textile Testing Techniques	Taylor and Francis Books Limited U.K.	2017,1st Edition
2	Jinilian Hu	Fabric Testing	Wood head Publishing	2008,1st Edition, Kindle Edition
3	Amutha	Practical Guide to Textile Testing	WPI Publishing	2016,1st edition
4	Elliot B Grover and Hamby D S	Handbook of Textile Testing and Quality Control	Wiley India Pvt Ltd	2011,1st Edition
5	Gopalakrishnan D, Vinayagamurthi P, Kandhavadivu P	Textile Testing	Daya Publishing House	20211st edition
6	Arindam Basu	Textile Testing Fibre, Yarn & Fabric	The South India Textile Research Association	2006,2 nd revised edition

E- Contents:

- 1 <https://nptel.ac.in/courses/116/102/116102029/#>
- 2 <https://nptel.ac.in/courses/116/102/116102049/>
- 3 <https://www.iso.org/committee/48148.html>

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

CourseDesigner

Dr.R.Radhika

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD2308	APPAREL QUALITY STANDARDS AND SPECIFICATION	Theory	58	2	-	4

Preamble

This course is designed to provide a comprehensive understanding of the quality standards and specifications that are essential in the apparel industry.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO NUMBER	CLO STATEMENT	CLO LEVEL
CLO1	Describe the importance of quality standards and specifications in the apparel industry.	K 1
CLO2	Identify and describe the various quality standards and specifications used in apparel production.	K 2
CLO3	Discover interpret and apply quality standards and specifications to ensure product quality.	K 3
CLO4	Examine the knowledge of quality control processes and techniques used in the apparel industry.	K 4
CLO5	Develop skills in measuring and evaluating apparel products against quality standards and specifications.	K 5

Mapping with Programme Learning Outcome

CLO LEVEL	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
CLO 1	S	S	S	S	S
CLO 2	M	M	S	M	S
CLO 3	S	S	S	S	S
CLO 4	S	S	M	S	M
CLO 5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

Unit I

11 Hours

Introduction to quality standards, importance, benefits, levels and sources of quality standards. ISO Standards for the Apparel Industry - ISO 9000 & ISO 14000 standards, OEKO Tex 100 standard, Made in Green, STEP, GOTS standards, GRI's sector standards -blue sign standards, ANSI standards, Textile Exchange standards, Cradle to Cradle certified standards.

Unit II

12 Hours

Standards in garment construction, seams, seam finishes, darts, dart equivalents, underlining, interfacing, interlinings, linings, inseam pockets, applied pockets, slashed pockets, bindings, facings, inset bands, rib-stretch Bands, Collars, Sleeves, sleeve finishes- cuffs and plackets, Waistline edge treatments – waistbands, waistline facings, edge casings, internal waistline treatments, button and decorative snap closures, buttonholes, zippered closures, hems and hems treatments. Finishing of placket opening of upper and lower garment.

Unit III

12 Hours

Quality Standards - Definition of a standard, benefits of standards, levels of standards, need for uniform standards, standards for different levels, quality standard and price relationship, national, company, industry, international, standardizing bodies, AATCC, ASTM, ANSI, ISO, BSI, BIS. Quality control inspection and quality control of finished garments. Quality implementation system SA8000 Standard, 5S, TQM, Lean manufacturing and Six Sigma lean manufacturing.

Unit IV

11 Hours

Specifications -Importance of specification sheet and its role in maintaining quality, process of spec sheet development, concept of tolerances - maximum, minimum, zero tolerance. Fabric inspection, classification of fabric defects, independent product quality certification.

Unit V

12 Hours

Garment defects - cutting defects, sewing defects, assembly defects, pressing, finishing and packaging defects. Inspection procedures - raw materials, in process, and final inspection. Quality control in final Inspection – AQL: Levels 1.5, 2.5, 4.0, 6.5. Cost of Quality and customer return.

Text Books :

S.NO	Name of the Authors	Title of the book	Publishers	Year and Edition
1	Sara J.Kadolph	Quality Assurance for Textiles and Apparel	Fairchild Publications	2007,2 nd edition
2	G. Prema and J. Hayavadana	Apparel Quality Assurance and Quality Control Handbook	Woodhead Publishing	2016,2 nd edition
3	Rajkishore Nayak and Rajiv Padhye	Garment Manufacturing Technology	Woodhead Publishing	2015, edition

Reference Books :

S.No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1.	Pradip Mehta & S.K.Bhardwaj	Managing Quality in Apparel Industry	New Age Publishers	2011, edition
2.	Stanley Bernard Brahams	The Fundamentals of Quality Assurance in the Textile Industry	CRS Press	2016
3.	Janace Bubonia-Clarke	Apparel Quality: A Guide to Evaluating Sewn Products	Fairchild Books	2015
4.	A. Chakraborty	Apparel Quality Control	PHI Learning Private Limited	2011,1 st Edition
5.	Pradip V. Mehta	Quality Management in the Apparel Industry	CRS Press	2012, 1 st Edition

E Journals:

- Journal of Textile and Apparel, Technology and Management
- International Journal of Textile Science
- Journal of Textile Engineering and Fashion Technology

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr. R. Radhika

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD23P06	3D APPAREL DESIGN AND MODELLING LAB	Practical	-	-	75	4

Preamble

This course helps to develop and gain about knowledge in the use and application of 3D fashion design software.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO STATEMENT	Knowledge Level
CLO1	Recognize designs for 3D modelling	K1
CLO2	Illustrate and create fabrics for design development	K2
CLO3	Assess pattern and garment for virtual fitting	K3
CLO4	Experiment on colour ways and 3D modelling	K4
CLO5	Create simulation for the developed designs	K5

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	M	S
CLO2	S	M	M	S	S
CLO3	S	S	S	S	S
CLO4	S	S	S	S	S
CLO5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

1. Tools and functions of 2D and 3D software. **5 Hours**
2. Design and pattern development of kids wear (3 Designs) **6 Hours**
3. Fabric visualization –creation of digitized fabrics for kids wear **6 Hours**
4. Assembling of pattern on 3D models and virtual fitting, Colour ways, simulation of kids wear (3 Designs) **12 Hours**
5. Design and pattern development of women's fashion wear (3 Designs) **9 Hours**

6. Fabric visualization -creation of digitized fabrics for women's wear **6 Hours**
7. Assembling of pattern on 3D models and virtual fitting, Colour ways, simulation of women's fashion wear (3 Designs) **7 Hours**
8. Design and pattern development of men's formal wear (3 Designs) **9 Hours**
9. Fabric visualization –creation of digitized fabrics for men's formal wear **6 Hours**
10. Assembling of pattern on 3D models and virtual fitting, Colour ways, simulation of men's formal wear (3 Designs) **9 Hours**

Text Books :

S.NO	Name of the Authors	Title of the book	Publishers	Year and Edition
1	Sayem Abu Sa	Digital Fashion Innovations	Taylor & Francis Group	2023,1 st edition
2	Alison Beazley	Computer Aided Pattern Design and Product Development	Wiley-Blackwell; 1st edition	2008, 1 st edition
3	Jinlian Hu	Computer Technology for Textiles and Apparel	Wood head Publishing; 1st edition	2011,1 st edition

Reference Books:

S.No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1	Natalie Bray	Dress Fitting 2nd Edition	John Wiley & Sons; New ed of 2 Revised ed edition	1987, 5 th Edition
2	Kathryn Mckelvey	Kathryn Mckelvey	Wiley; 2nd edition	2011, 2 nd Edition
3	Alexandra Suhner Isenberg	Technical Drawing For Fashion Design Garment Source Book Volume 2	Pepin Press	2011,Pap/Cdr edition 1

E- Contents :

- 1 <https://www.youtube.com/watch?v=QHvpX7H2tgg>
- 2.. <https://www.youtube.com/watch?v=OtEziA52iBs>
3. <https://www.youtube.com/watch?v=1YKcgzmulzU>
4. <https://geminicad.com/products/creative-studio/>

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, peer learning, demonstration.

Course Designer

Dr.R.Radhika

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD23P07	TEXTILE AND APPAREL TESTING LAB	Practical	-	-	90	4

Preamble

This course helps to develop and gain knowledge about the physical testing of textiles and apparels as per the standards used in Apparel industry.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO STATEMENT	Knowledge Level
CLO1	Understand the physical parameters of fibers, yarns and fabrics.	K2
CLO2	Identify the mechanical properties of woven and knitted fabrics	K3
CLO3	Experiment with the comfort properties of woven and knitted fabrics	K3
CLO4	Distinguish the suitability of fibers, yarns and fabrics for various end application	K4
CLO5	Examine the physical properties of apparels	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	M	S	S	S
CLO2	M	M	S	S	S
CLO3	M	M	S	S	S
CLO4	M	M	S	S	S
CLO5	M	M	S	S	S

S- Strong; M-Medium

Syllabus

Testing and Evaluation of:

I Fibre and Yarn

15 Hours

1. Fibre length, moisture regain
2. Estimation of linear density of yarn (Natural and synthetic)
3. Lea strength, single/ply yarn twist, crimp length

II Fabric

4. Woven and Knitted - EPI, PPI, WPI, CPI, Thickness, GSM 12 Hours
5. Estimation of blend ratio of fabric 7 Hours
6. Fabric Stiffness, Crease Recovery, Drape 10 Hours

7. Tensile strength and elongation, Tear strength, Bursting strength, Abrasion Resistance, Pilling 15 Hours
8. Fabric absorbency tests-Drop, wicking, spray and sinking tests 10 Hours
9. Colour fastness to sunlight, washing, wet and dry crocking, pressing Perspiration –Acidic and alkaline 10 Hours

III Apparel testing 11 Hours

10. Apparel dimensional stability, Spirality, Skewing and measurement, Peel bond strength

***Necessary practice given through the industry and research centers visit.**

Text books:

S.NO	Name of the Authors	Title of the book	Publishers	Year and Edition
1	Elliot Brown Grover, Dame Scott Hamby	Handbook of Textile Testing and Quality control	Textile Book Publishers, New York	2007,1 st edition
2	Booth J.E.,	Principles of Textiles Testing	CBS Publishers and Distributors, New Delhi	1996,3 rd edition
3	Saville, B.P	Physical Testing of Textiles	Wood head publishing Ltd., England	2004,1st edition

Reference Books:

S.No.	Author	Title of the Book	Publishers	Year and Edition
1	Wang Lijing	Performance Testing of Textiles, Methods, Technology and Applications	Woodhead Publishing, Elsevier Ltd. New Delhi	2016,1 st edition
2	Jewel Raul	Textile Testing	APH Publishing Corporation New Delhi	1994, edition
3	Jinlian HU	Fabric Testing	Wood Head Publishing, Cambridge, England	2008,1 st edition
4	Ruth E Glock and Grace I Kunz	Apparel Manufacturing	Prentice hall, New Jersey	2005, 3 rd edition

E- Contents:

1. <https://www.youtube.com/playlist?list=PLCC58838EBECB7149>
2. <https://www.youtube.com/channel/UCXw7428MTvquxKUZEOr4EAA/videos?view=0&sort=dd&flow=grid>
3. <https://www.youtube.com/channel/UCGqWXJgzpXyyu283QbdYiFQ/videos>

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, peer learning, demonstration.

Course Designer

Dr.R.Radhika

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD23E04	NANO TEXTILES	Theory	43	2	-	3

Preamble

This course helps to explore the fundamental concepts of nanotechnology, development of nano textiles in apparel sectors

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO NUMBER	CLO STATEMENT	CLO LEVEL
CLO1	Explain the fundamental concepts of nanotechnology	K1
CLO2	Indicate the properties and applications of nano fibers by different process and methods	K2
CLO3	Discover the nano particles and preparation of nano-sized materials with functional finishing	K3
CLO4	Analyse the functionality of Nano textiles	K4
CLO5	Explain the methods of characterization nanoparticles	K5

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	M	S	M	S
CLO3	S	S	S	S	S
CLO4	S	S	M	S	S
CLO5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

Unit- I

8 Hours

Introduction to nanotechnology - concept of nanoscale and historical background of nanotechnology, fundamental concepts of nano technology - bottom-up approaches, top down approaches, scope of nanotechnology in textile and apparel manufacturing

Unit -II**9 Hours**

Synthesis and properties of nano fibers - electro spinning of nano fibres. Continuous yarns from electro spun nano fibres. properties of nano fibers, electro spraying and electro spinning by the capillary method, electro spraying and electro spinning by the charge injection method, controlling fiber orientation, applications of nano fibres viz, tissue engineering, filter media.

Unit -III**9 Hours**

Nano particles - Preparation of nano-sized materials - vapour phase reaction-commercially nano-particles- metals and metal oxides nano-particles- polymer and polymer nano-composites- Clay nano-particles, carbon nano particles-polymer nano-whiskers. Nano-particles in functional textile finishing- Wrinkle resistance- stain resistance- water repellency - anti-static performance- anti-bacterial effect-ultra violet protection.

Unit-IV**8 Hours**

Nano textiles and apparel - development of nano textiles and apparel using - nano-tex, nano-care,nano-dry, nano-touch, for home furnishing, technical textiles, smart and medical apparels. Polymer functionality and nano coating development of nano technologies for coating and structuring of textiles.

Unit-V**9 Hours**

Characterization of nanoparticles - X-ray diffraction, transmission electron microscopy and spectroscopy; Scanning electron microscopy (SEM) Transmission electron microscopy (TEM) Energy-dispersive x-ray spectroscopy (EDS), Small-Angle X-Ray Scattering (SAXS), The Cone calorimeter(CC), The mass loss calorimeter(MLC)

Text Books :

S.No	Name of the Authors	Title of the book	Publishers	Year and Edition
1	MaiY-W	Polymer Nano composites	Wood head publishing	2006, 1 st edition
2	Guazhong Cao	Nano structure and nanomaterials	Imperial College Press, USA	2006, 2 nd edition
3	Seeram Ramakrishna	An introduction to electro spinning and Nano fibers	World Scientific Publishing Co,	2005 1 ST edition

Reference Books:

S.No	Name of the Authors	Title of the book	Publishers	Year and Edition
1	BrownPJ and Stevens K	Nano fibres and Nanotechnology in Textiles	Woodhead Pub. Ltd	2007, 1 st edition
2	CRC Taylor & Francis, Boca Raton	Nanotubes and Nano fibres	YuryGogots	2006,1 st edition
3	Mick Wilson, Kamali Kannangara, Geoff Smith, Michelle Simons and Burkhard Raguse	Nanotechnology-Basic Science and Emerging Technologies	Overseas Press, New Delhi	2005, edition
4	Ramakrishna.S Fujihara.K Teo,W.E.,Lim, T.C.,Ma,Z	Electro spinning and Nanofibers	World Scientific Printers, Singapore	2005,1 st edition

E- Journal:

- Textile World
- International Journal of Textile Science
- Journal of Fashion Technology & Textile Engineering
- Journal of Textile Engineering

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr. R. Radhika

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD23E05	PROTECTIVE TEXTILES-HEALTH CARE APPLICATION	Theory	43	2	-	3

Preamble

To impart knowledge in the development of health care textiles for front line personnel

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO NUMBER	CLO STATEMENT	CLO LEVEL
CLO1	Understand the different segments of Health care and medical textiles	K1
CLO2	Gain knowledge on health care and medical textile devices	K2
CLO3	Understand the Design criteria for health care products	K3
CLO4	Fabrication of Healthcare medical textiles	K4
CLO5	Understand the Quality and Standards for Healthcare Protective textiles	K5

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	M	S	S	S
CLO3	S	S	S	S	S
CLO4	S	S	M	S	S
CLO5	S	S	S	S	S

Strong; M-Medium

Syllabus

Unit I:

8 Hours

Introduction to Health care medical textiles-different segments of medical textiles and the products of each segments. Different segments of medical textiles -Healthcare medical textiles, Hygiene medical textiles, Implantable medical textiles, Non implantable medical textiles and Extra corporeal devices.

Unit II:**9 Hours**

Introduction to healthcare and medical textile devices- various health care and medical textile device, different types of polymers Alginate, Chitosan, Silk, PLA, PGA, Carboxymethyl cellulose, Cellulose acetate, Polyurethane, Polyester, Polypropylene used in medical applications. Chemical and physical properties of each polymer with respect to the specific product.

Unit III:**9 Hours**

Design criteria and fabrication of health care medical textile products- Technologies for Health care Textiles and Product Development- Knitting, Braiding, 3D weaving, nonwoven techniques, spacer fabric, composites, Hydrogel, Rapid prototyping, Electro spinning.

Unit IV:**9 Hours**

Healthcare medical textiles Introduction- Importance of textile materials in the development of health care products and the technologies used for the development of these products for - surgical gowns, drapes, coverall, face masks, antibacterial textiles. Manufacturers, sterilization process, advantages and disadvantages of the technologies with respect to disposal and non-disposal nature of each products- future directions.

Unit V**8 Hours**

Healthcare Medical textiles -Standards - National and International standards, quality norms as per BIS and CDSCO. Certification process involved in medical textiles.

Text Books :

S.No	Name of the Authors	Title of the book	Publishers	Year and Edition
1	V. K. Kothari (Ed)	Technical Textiles	IAFL Publications. New Delhi	2008, 1st ed
2	Sabit Adanur (Ed)	Wellington Sears Handbook of Industrial Textiles	Technomic Publishing Company, Inc, Pennsylvania	1995, 1st Edition
3	Richard A. Scott (Ed)	Textiles for Protection	Woodhead Publishing Limited, Cambridge	2005, 1st Edition

Reference Books :

S.No	Author	Title of the Book	publishers	Year and Edition
1	Subhash Anand	Medical Textiles	Woodhead Publishing Ltd	2005 Nil edition
2	JF Kennedy, SC Anand, M Miraftab, S Rajendran	Medical Textiles- Proceedings of the fourth international conference on health and medical textiles	CRC Press	2007 2 nd edition
3	S.C. Anand, M Miraftab, Kennedy	Medical Textiles and Biomaterials for Healthcare	Woodhead Publishing Ltd	2005,1st Edition
4	Richard A. Scott (Ed)	Handbook of Technical Textiles	Woodhead Publishing Limited, Cambridge	2005,1st Edition

E- Contents

- <https://youtu.be/zTdPS0fCCvs?si=4Pp0oURbSmpt5MeF>
- <https://youtu.be/OKSTt7TPr1A?si=J0uE5A6xhGxi9tZG>
- https://youtu.be/vh04FIc6OPk?si=rGXZt_tn830RNfvW

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr. R. Radhika

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD23E06	COMPLIANCE STANDARDS IN APPAREL INDUSTRY	Theory	43	2	-	3

Preamble

This course provides gain about knowledge in the concept and need for compliance in apparel industry, technical compliance, ethical trading and international compliance.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the knowledge and concept need for compliance in Apparel industry.	K2
CLO2	Develop knowledge on health and safety compliance followed in Apparel industry	K3
CLO3	Interpret on environmental compliance to be adhered by Apparel industry.	K3
CLO4	Examine the technical compliance norms followed in Apparel industry.	K4
CLO5	Create compliance norms followed by various international sourcing companies.	K5

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	M	S	M	M
CLO2	S	M	S	M	M
CLO3	S	M	M	M	M
CLO4	S	M	M	M	M
CLO5	S	M	M	M	M

S- Strong; M-Medium

Syllabus

Compliance - introduction -scope and need for different compliances Social, health and safety, environmental, technical, international compliance - concept, need, benefits for industry, workers and society. Social accountability and Corporate Social responsibility - scope and need. Social Compliance in supply chain management.

Unit II

9 Hours

Social compliance - conventions on gender and caste discrimination, forced labour, child labour, and minimum age convention. SA 8000 – elements, Worldwide Responsible Apparel Production (WRAP). Ethical Trading Initiative (ETI). Corporate Social Responsibility (CSR) compensation–norms applicable in India, code of conduct, minimum wages Act, remuneration, Trade Union Acts.

Unit III

8 Hours

Environmental compliance – environmental laws and regulations, the regulations related to handling, recycling, and disposal of hazardous materials. Requirements of pollution control board, ISO 14000 – elements and certification. Eco standards, Eco labels, REACH, OEKO TEX, GOTS. Certification requirements for apparel industry

Unit IV

8 Hours

Technical compliance - elements and requirements of ISO 9000, Meeting vendor compliance–WALMART, JCPENNY. Needle policy, maintenance of safety data of materials in stain removal, poly bags, children wear requirements.

Unit V

9 Hours

Ethical trading and international compliance - Ethical Trading Initiative (ETI). Basic code of labour practice. Worldwide Responsible Apparel Production (WRAP) purposes, WRAP Principle, certification process, SA8000. National and international regulating organizations –OSHA, WRAP, GOTS, OEKO TEX. HIGG- HIGG concept.

Text Books

S.No	Name of the Authors	Title of the book	Publishers	Year and Edition
1	Rathinamoorthy	Apparel Machinery and Equipment	Woodhead Publishing	2018 Standard Edition
2	Seema Kapoor	Apparel Manufacturing Technology	Sonali Publications	2016
3	Richard M.Jones	The Apparel Industry	Wiley-Blackwell John Wiley & Sons L;	2006,1 st edition

Reference Books

S.No.	Author	Title of the Book	Publishers	Year and Edition
1	Das.S,Li & Fung	Product safety and restricted substances in apparel	Woodhead Publishing	2016,1 st edition
2	Christie.R	Environmental aspects of textile dyeing	Heriot-Watt University Woodhead Publishing Series in Textiles	2006,1 st edition
3	Rajesh Chhabara	Social Accountability	Ava Softech Pvt. Ltd	2005

E- Contents :

- <http://www.labour.nic.in>
- <http://www.unicef.org>
- <http://www.indianchild.com>
- <http://www.paycheck.in>
- <http://www.sa-intl.org>

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr. R. Radhika

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD23S1	RESEARCH METHODOLOGY AND STATISTICS	Theory	43	2	-	2

Preamble

This course is designed to provide the foundational knowledge and skills necessary to conduct research in various fields and also focus on how to design research studies, analyze data, and interpret results effectively.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO NUMBER	CLO STATEMENT	CLO LEVEL
CLO1	Understand the fundamental principles of research methodology and its importance in academic and professional settings.	CLO 1
CLO2	Conduct a literature review to identify relevant theories, concepts, and previous research related to a research topic.	CLO 2
CLO3	Identify and apply appropriate research methods and techniques for data collection, analysis, and interpretation.	CLO 3
CLO4	Develop a research proposal that includes a clear research question, objectives, methodology, and timeline.	CLO 4
CLO5	Design and implement a research study using appropriate methodologies and tools.	CLO 5

Mapping with Programme Learning Outcomes

CLO LEVEL	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
CLO 1	S	S	S	S	S
CLO 2	S	S	M	S	M
CLO 3	S	S	S	S	S
CLO 4	S	M	S	S	S
CLO 5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

Unit-I

8 Hours

Research - Definition, Meaning, Objectives, types of research, significance of research and defining research process. Research Problem - Sources, identification, selection and statement, review of related literature.

Unit-II

9 Hours

Research design - Meaning, types of research designs, basic principles of experimental designs. Developing a research plan related to the textile industry. Sampling - sampling census and sample survey, steps in sampling design, criteria for selecting a sampling procedure, characteristics of a good sample design, different types of sample designs.

Unit-III

8 Hours

Methods of data collection - Observation, questionnaire and interview. Data processing and analysis - collection, classification – tabulation, graphical, representation and data analysis. Interpretation of data and report Writing.

Unit-IV

9 Hours

Measures of central tendency-Testing of Hypothesis -Parametric tests-Non Parametric test-descriptive measures – mean, median mode and its applications dispersion – standard deviation, correlation, coefficient of co-relation and its interpretation, rank co- relation, regression equation and prediction . Application of students test for small samples for single mean, difference in means- test for equality of variance. Non – parametric test, Application of Chi-square test, ANOVA test.

Unit-V

9 Hours

Research Ethics and Responsible Conduct in Research: Brief history and analytical basic of research ethics, responsible conduct in research (Honesty in science: Integrity, Authorship, Conflicts of Interest, privacy and Confidentiality, Informed Consent, Risk/Benefit Assessment), The legal regulation of research ethics, in India (From UGC, MHRD and other governing agencies), Regulatory requirements relevant to international research

TEXT BOOKS :

S.NO	Name of the Authors	Title of the book	Publishers	Year and Edition
1	Mark N.K. Saunders, Philip Lewis, and Adrian Thornhill	Research Methods for Business Students	Pearson Education Limited	2019 ,1 st edition
2	Nicholas Walliman	Research Methods: The Basics	Routledge	2017 2 nd edition
3	S P Gupta	An Introduction to Statistical Methods	Vikas Publishing House	2009
4	G.C.Ramamurthy	Research Methodology	Kindle Edition, Dream tech Press.	2011, 1 st edition

REFERENCE BOOKS:

S.No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1.	Ranjit Kumar	Research Methodology: A Step-by-Step Guide for Beginners	SAGE Publications Ltd	2020, 1 st edition
2.	John W. Creswell and J. David Creswell	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches	SAGE Publications, Inc	2017, 2 nd edition
3.	Neil J. Salkind	Statistics for People Who (Think They) Hate Statistics	SAGE Publications, Inc	2016, 1 st edition
4.	Geoffrey R. Marczyk, David DeMatteo, and David Festinger	Essentials of Research Design and Methodology	John Wiley & Sons	2017
5.	V S Karpagavalli, Dr. C. P. Shirley, Dr. S. Shirley & Mrs. R Golden Nancy	Research Methodology	Jec Publication	2023, 1 st edition

E- Contents :

- <https://youtu.be/1vf8ZvADxfY?si=1eVoMT1jGCvOPD9->
- https://youtu.be/rloOsJxluBk?si=Sia_lRc4PzdHawXN
- <https://youtu.be/YOppeXzFkBs?si=pDLbIHUfe3TxJ368>
- <https://youtu.be/I10q6fjPxJ0?si=Ce5ZG6XHzCpyRDSW>

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr. R. Radhika



**M.Sc. FASHION AND APPAREL DESIGN CHOICE BASED
CREDIT SYSTEM (CBCS)&
LEARNING OUTCOMES- BASED CURRICULAR FRAMEWORK (LOCF)
SYLLABUS & SCHEME OF EXAMINATION
BATCH 2023-2025 , SEMESTER –IV**

Programme and Branch: M.Sc. Fashion and Apparel Design											
SEMESTER	Course Code	Title of the Course	Course type	Instructionn	Contact hours	Tutorial Hours	Duration of Examinationn	Examination Marks			Credits
IV								CA	ESE	TOTAL	
	MFD2309	Home Textiles	CC	5	73	2	3	25	75	100	4
	MFD23P08	Home Textiles - Product Development Lab	CC	7	105	-	4	25	75	100	5
	MFD23PROJ	Project and Viva voce	DSE	18	-	-	-	25	75	100	12
	MFD2310	ALC Indian Traditional Textiles Crafts	ACC	#SS	-	-	3	25	75	100	5
I-IV		Total								Marks 2300	Credits 90

CC-All core courses **ACC**-Additional credit course **CA** – Continuous Assessment

ESE - End Semester Examination **ALC**-Advance learner course **#SS**-Self-study

* Credits applicable to candidates who take up Advanced Level Course examination



PROGRAMME LEARNING OUTCOMES (PLO's)

After completion of the programme, the student will be able to

- **PLO1:** Understand diverse cultural influences and market demands of apparel industry
- **PLO2:** Create innovative functional and aesthetic apparels and accessories.
- **PLO3:** Design apparels with advance digital tools and technologies
- **PLO4:** Research and analyze textile and fashion trends
- **PLO5:** Apply knowledge and skill in the fashion field and promote entrepreneurship.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

The students at the time of graduation

- **PSO1:** Graduates can function independently with their innovative and creative skills
- **PSO2:** Graduates will be able to meet the current requirements of apparel Industries
- **PSO3:** Graduates can undertake research /projects for new product development

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD2309	SEMESTER – IV HOME TEXTILES	Theory	73	2	-	4

Preamble

This course provides a study of home textiles, and their performance in home décor and functional textiles.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Relate the fundamentals of home textiles.	K1
CLO2	Outline the types of raw materials and manufacturing processes used for home textiles.	K2
CLO3	Examine the criteria for selection of finishes in home textiles.	K3
CLO4	Analyze the design, materials, functionality, and maintenance requirement of home textiles.	K4
CLO5	Evaluate the performance of in accordance to regulatory standards for home textiles.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	S	S	S	S
CLO2	M	S	S	S	S
CLO3	S	S	S	S	S
CLO4	S	S	S	S	S
CLO5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

UNIT I

15 Hours

Home Textile-Introduction, definition and classification, home textile market scenario. fibers used in home textiles- Selection of sustainable fibers in home textiles- organic cotton, bamboo, recycled polyester. Fabrics for home textiles- woven, knitted and nonwoven, Special finishes used in home textiles- wrinkle-free, soil release, UV protection, and odor control finishes

UNIT II**14 Hours**

Introduction and definition of linens - Introduction, definition and types of bed linen, kitchen and table linen, bath linen-Made-ups. Selection and manufacturing of Linens and application and Care of Linens.

UNIT III**14 Hours**

Windows and wall covering-Designs, types and materials used, manufacturing of draperies, curtains-Applications and uses. wall coverings- Introduction, definition, types and materials used, manufacturing of wall coverings-Application-Residential, commercial, and institutional uses-End use. Care and maintenance-cleaning techniques for various materials

UNIT IV**14 Hours**

Floor Covering-Introduction, definition, types of carpets -Types of floor coverings- Carpets, rugs, mats, tiles, laminate flooring. Materials used- Wool, polypropylene, nylon, natural fibers coir, sisal. Manufacturing of carpets and rugs- tufting, weaving, knitting, needle-punching techniques. Use and care of floor coverings-Applications of residential, commercial, and industrial uses. Use and care-Vacuuming, deep cleaning, stain prevention. Innovations in floor coverings -noise-reducing and temperature-regulating carpets.

UNIT V**16 Hours**

Finishes, special performance and evaluation used in home textiles finishes- Temperature- regulated beddings, antimicrobial, moisture management, flame- retardant, Water and oil repellent. Special performance- Special performance requirements in home textiles related to world market. Eco-friendly standards in home textiles. Importance of eco labelling in home textiles. Evaluation-regulatory test – flammability test for different home textiles.

TEXT BOOKS**:**

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1	S Das	Performance of Home Textiles'	Woodhead Publishing	2010
2	Subrata Das	Performance of Home Textiles	Woodhead	2018
3	Katrin Cargill	Simple Curtains	Ryland Peters and Small	2002
4	Wendy Baker	Curtain and Fabric Selector	Collins and Brown	2000
5	Home Textiles	Gopalakrishnan.D and T.Karthik	Astral	2020

REFERENCE BOOKS :

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1	Horrocks, A. Richard, and Anand, Subhash C.	Handbook of Technical Textiles	Woodhead Publishing	2016
2	Ricci, Maureen Whiteman	Home Textiles: A Complete Guide to Furnishing Fabrics and Design	Fairchild Books	2011
3	Kadolph, Sara J.	Textiles (11th Edition)	Pearson	2014
4	Saville, B. P.	Physical Testing of Textiles	Woodhead Publishing	2000

Related Online Contents

- <https://www.businesswireindia.com/welspun-secures-patent-for-new-line-of-augmented-reality-home-decor-50283.html>
- <https://textilelearner.blogspot.com/2014/08/fabrics-for-interior-home-textile.html>
- <https://ihmkolkata.blogspot.com/2013/05/wall-coverings.html>

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, assignment, quiz, peer learning, seminar.

Course Designer

Dr.Indumathi & Dr.S.Thamarai

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD23P08	SEMESTER IV HOME TEXTILES -PRODUCT DEVELOPMENT LAB	Practical	-	-	105	5

Preamble

This course provides opportunities for designing and developing home textile products that blend functionality with aesthetic appeal.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the essential principles of designing functional and aesthetic home textile products.	K1
CLO2	Identify the fabrics and raw materials for various home textiles.	K2
CLO3	Experiments with designing drafting and construction techniques for home textile products.	K3
CLO4	Design and develop home textiles products by integrating different techniques and finishes.	K6

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	S	S	S	S
CLO4	S	S	S	S	S
CLO5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

- | | |
|--|---------|
| 1.Designing and construction of nursing pillow, nursing pads | 9 Hours |
| 2.Designing and construction of diaper bag, hooded towel. | 8 Hours |
| 3.Designing and construction of baby bed and sleeping bag for babies | 8 Hours |
| 4.Designing and construction of essential baby accessories-gloves, cap, and socks. | 9 Hours |
| 5.Designing and construction of cushion covers and chair pad | 9 Hours |

6.Designing and construction of apron and oven mitten	8 Hours
7.Designing and construction of made ups set for bed linen	9 Hours
8.Designing and construction of types of pleats for curtains, types of curtains (each -5)	9 Hours
9.Designing and development for swags, cascades and accessories for curtains. (each-5)	9 Hours
10.Designing and development of quilts and multi-purpose mat for different applications	9 hours
11.Designing and pattern development for a bathrobe	9 Hours
12.Garment development for a bathrobe	9 Hours

Instruction to students

- The products can be made in quarter scale when the product size is huge
- Use of quarter scale is optional
- Actual size should be mentioned along with $\frac{1}{4}$ scale calculation in record sheets

TEXTBOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1	Aldrich, Winifred	Metric Pattern Cutting for Children's Wear and Babywear	John Wiley & Sons	2009
2	Stewart, Judith, Erwin, Margaret	Textiles and Sewing Guide	Dorling Kindersley	2004
3	McCall, Beth	Home Furnishings Workbook	Goodheart-Willcox	2017
4	Jessica B. Berenbaum	The Complete Book of Sewing for the Home	Creative Homeowner	2001
5	Sue & Alan Smart	The Complete Guide to Sewing	Reader's Digest	2002
6	Katrin Cargill	Curtains and Blinds: Contemporary Solutions for Window Treatments	Collins & Brown	2005

Online Reference

- <https://www.mypram.com/en/home-textiles/?p=1>
- <https://organicmanufacture.com/product-category/baby-room-products/baby-swing/>
- <https://vizaro.es/Baby-Bedding-Nursery-Home-Decor-Textiles>
- https://vizaro.es/epages/ec9fb728-b4bf-4cf2-b412-c14a5ff7c09d.sf/en_GB/?ObjectPath=/Shops/ec9fb728-b4bf-4cf2-b412-c14a5ff7c09d/Categories/Textiles Hogar Bebe/Textiles Articulos

Pedagogy

Lecture by chalk and talk, power point presentation, e-content, group discussion, peer learning and demonstration.

Course Designer

Dr. R. Radhika & Dr. Indumathi

COURSE CODE	COURSE NAME	Category	L	T	P	Credit
MFD2312	SEMESTER – IV ADVANCED LEARNER COURSE INDIAN TRADITIONAL TEXTILES CRAFTS	Theory	-	-	-	5*

Preamble

This course explores into Indian traditional textiles, their techniques, significance, and legal protections.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the history, features, and commercial value of traditional Indian textiles.	K1
CLO2	Explore Indian embroidery history and techniques,	K2
CLO3	Discover the traditional Indian printing methods and its applications.	K3
CLO4	Examine dyeing techniques of differences regions and trends.	K4
CLO5	Evaluate legal protections for traditional crafts.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	M	S	S	S
CLO2	M	S	S	S	S
CLO3	S	S	S	S	S
CLO4	S	S	S	S	S
CLO5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

Unit-I

Introduction of Indian traditional textiles- historical significance, general characteristics of traditional textile crafts – centers of production and techniques, commercial significance and status of textile crafts, activities of the government for export promotion- design clusters, GI crafts, exhibitions, programs and developmental schemes

Unit-II

Embroidered textiles of India- Kutch Kathiawar, Sindhi, Phulkari, Kantha, Kasuti, Chamba rumal, Phool Patti ka Kaam, –History, fabrics used and equipment used, traditional motifs and patterns, embroidery techniques, product developed, applications of traditional embroidery in current trends.

Unit-III

Indian traditional printed textiles -Techniques, colours and motifs - Ajrakh, Ikat, Batik, Bagh, Dabu, Kalamkari Leheriya - Development of traditional printing designs and motifs of traditional printing designs. Applications of current techniques in printing

Unit-IV

Traditional resist- dyed textiles from different regions of india-categorisation of ikat styles on the basics of region–patola of Gujarat, bandhas of Odisha, pochampalli, and TeliaRumal of Andhra Pradesh ,categorization of tie-dyed textiles on the basics of bandhini of Gujarat bandhej and leheriya of Rajasthan

Unit-V

Copyright law and traditional craft business in India - Status of traditional handicrafts - Acts and statutes for artistic works- protection under geographical indications of goods - DesignAct - Legal procedure to register for a copy right in the field of art and crafts -Registration of design - Steps to design application - ISO certification

REFERENCE BOOKS

S.NO	Name of the Authors	Title of the book	Publishers	Year of Publication
1	AnjaliKarolia	Traditional Indian Handcrafted Textiles	Niyogi Books	2019
2	R̥ta Kapur Chishti, Rahul Jain, Martand Singh R̥ta Kapur Chishti, Rahul Jain	Handcrafted Indian Textiles	Tradition and Beyond <i>Roli books</i> ,	2000
3	Asharani Mathur, Rupa	Woven Wonder The Tradition of Indian Textiles,	Woven Wonder	2002
4	Delphine Marie-Vivien	The Protection of Geographical Indications in India	Hardcover	2015

5	Helmut Neumann, Heidi Neumann, Rosemary Crill	Textiles of India	Prestel Publishing	2020
6	Zhang Mi	Practical Handbook of Design Patent Applications Paperback	Chinese Edition	2011

Pedagogy

Self-Study

Course Designer

Dr. R.Tryphena & Ms.A.Jasira Banu