ANNEXURE 5.1

Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Department of Textiles and Clothing
M.Sc. Textiles and Fashion Apparel

Programme Outcomes:

1. **Disciplinary knowledge:** Understand the advancements in heritage textiles, fashion designing, textile production, processing and evaluation of textiles
2. **Critical thinking and Communication skills:** Apply and communicate acquired knowledge and skills to develop solution for sustainable practices in product design and development
3. **Research related skills:** Execute research with scientific understanding to transfer thoughts into reality through appropriate research methods
4. **Information digital literacy:** Access latest developments in computer aided designing and use appropriate software to create designs, patterns and illustrations appropriate for the industry
5. **Self directed learning:** Carry out independent projects, develop innovative and creative design concepts considering cultural and ethical values
6. **Individuality and Team work:** Develop skills to identify resources, self learning techniques to enhance creativity and understand importance of individuality and team spirit for entrepreneurship and professional career.

Programme Specific Outcomes:

1. Gain expertise in heritage textiles, costumes, fashion designing, accessory designing, advanced textile production and processing
2. Obtain experience in fashion portfolio, garment making, textile fabrication, textile management and quality control.
3. Undertake various need based and multidisciplinary researches, to create a successful business.

Scheme of Instruction and Examination
(For students admitted from 2025-2026 & onwards)

Part	Subject Code	Name of Paper / Component	Hours of instruction/ week		Scheme of Examination				
			T	P	Duration of exam	CIA	CE	Total	Credi
		First Semester							
I	25MTFC01	World Costumes	3	-	3	40	60	100	3
	25MTFC02	Textile Production Processes	4	-	3	40	60	100	4
	25MTFC03	Advanced Textile Processing	4	-	3	40	60	100	4
	25MTFC04	Research Methods and Statistical Applications	5	-	3	40	60	100	5
	25MTFC05	Fashion Portfolio (Practical)	-	6	3	40	60	100	3
	25MTFC06	Dyeing and Printing (Practical)	-	6	3	40	60	100	3
II		**CSS/ Adult Education/ Community Engagement and Social Responsibility**	2	-	-	-	-	-	-

Second Semester									
I	25MTFC07	Technical Textiles	4	-	3	40	60	100	4
	25MTFC08	Knitting Technology	4	-	3	40	60	100	4
	25MTFC09	Sustainable Fashion and Textiles	3	-	3	40	60	100	3
	25MTFC10	Textile Management	3	-	3	40	60	100	3
	25MTFC11	Textile Testing (Practical)	-	4	3	40	60	100	2
	25MTFC12	Fashion Accessories (Practical)	-	6	3	40	60	100	3
II		Interdisciplinary Course	4	-	3	100	-	100	4
		Professional Certificate Course	-	-	-	-	-	-	2
	25MXCSS1/ 25MXAED1/ 25MXCSR1	**CSS/ Adult Education/ Community Engagement and Social Responsibility**	2	-	2	-	-	100	2
Internship during Summer Vacation (1 month)									
Third Semester									
I	25MTFC13	Textile Economics and Marketing	3	-	3	40	60	100	3
	25MTFC14	Clothing Standards and Specifications	3	-	3	40	60	100	3
	25MTFC15	Fashion Presentation	3	-	3	40	60	100	3
	25MTFC16	Nonwoven Technology	4	-	3	40	60	100	4
	25MTFC17	Advanced Fashion Apparel Designing (Practical)	-	6	3	40	60	100	3
	25MTFC18	CAD for Fashion Apparel (Practical)	-	6	3	40	60	100	3
	25MTFC19	Mini Project	1	-	-	100	-	100	2
	25MTFC20	Fashion Draping (Self Study)	2	-	3	100	-	100	2
	25MTFC21	Internship	-	-	-	-	-	100	2
II		Multidisciplinary course	2	-	3	100	-	100	2
Fourth Semester									
I	25MTFC22	Research Thesis/ Project/ Patent	-	30	-	100	100	200	20
								Total Credits	86+1

Other courses to be undergone by the student:

***MOOC courses: 2 to 4 Credits – Credit transfer may be claimed.**

Minimum 96+2 Credits to earn the degree

** Students who exit at the end of 1st year shall be awarded a **Postgraduate Diploma.**

Courses offered by the department:

- **Inter Disciplinary Course :** 25MTFI01 Fundamentals of Textiles
- **Multi Disciplinary Course :** 25MTFM01 Eco Friendly Textiles
- **Professional Certificate Course :** 25MTFPC1 Medical Textiles

Course Code	Name of the courses	In collaboration with	No. of days
25MTFPC1	Medical Textiles	South Indian Textile Research Association (**SITRA**), Coimbatore.	10

Semester I **World Costumes**
25MTFC01

Hrs of instruction/week: 3
No of credits: 3

Course Objectives:

1. To gain knowledge in ancient world costumes
2. To understand the costumes of the world
3. To learn about the features of world costumes and accessories

Unit I	**Ancient Indian costumes** - Gupta period, Kushan period, Satavahana period, Maurya and Sunga period - Costumes of male and female, ornaments, accessories, Art forms and **head wears***.	**10 hrs**
Unit II	**European Costumes** – Ancient costumes- Greece, Roman, Egypt, Sweden, Denmark, Germany, Switzerland, Poland and Netherland, Art forms, **Men and Women- accessories**	**10hrs**
Unit III	**Costumes of far Eastern Countries** – Japan, Hong Kong, Srilanka, Pakistan, Malaysia, China, Burma and Thailand- **Men and Women Costume***, Art forms and Accessories.	**8 hrs**
Unit IV	**Medieval** - Costumes of England and France-men's and womens- 13^{th},14^{th},and15th centuries, Art forms and Accessories.	**9 hrs**
Unit V	**American Costumes** – Men's and Women's Costume – 13^{th}, 14^{th}, and **15^{th} Centuries***, Art forms and Accessories.	**8 hrs**

***Self Study**

Total Hours: **45 hrs**

References:

Text Books:

1. **Mary G Houston, (2013).**Ancient Greek, Roman and Byzantine Costume, Dover Publications, Mineola.
2. **John E.Vollmer,(2011).**Encyclopedia Of World Dress And Fashion: Volume6, Oxford University Press, UK.
3. **John Peacock, (2010).** "The Chronicle of Western Costume", Thames and Hudson Publisher, USA.
4. **Patricia RieffAnawalt, (2007).** The Worldwide History of Dress, Thames & Hudson, USA.

Reference Books:

1. **Angela bradshaw(2021),** World Costume, Hassell street press, USA.
2. **VishuArora, (2018).** "Suvasas-The Beautiful Costumes", Abhishek Publication, Chandigarh, India.
3. **Dorling Kindersley, (2012).** Fashion- The Ultimate Book of Costume and Style, Published by Dorling Kindersley Limited; London.
4. **Philip Steele, (2005).**"A History of Fashion and Costume", Volume 7, Bailey Publishing Associates Ltd, New York.

Course Outcomes:

1. Understand the ethnicity of historical costumes and arts around the world
2. Interpret the periodical costumes of men and women with reference to style and fabric
3. Differentiate the accessories of men and women in ancient period of various regions
4. Evaluate the uniqueness of the world costumes and the art forms
5. Develop an ancient costume inspired fashion garment with accessories

CO / PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	1	-	2	2	-	-
CO 2	3	-	-	2	2	2	2	-	-
CO 3	3	1	1	-	2	3	2	-	1
CO 4	3	1	2	1	2	2	3	-	2
CO 5	3	1	2	2	1	3	3	-	2

Semester I **Textile Production Processes**

25MTFC02

Hrs of instruction/week: 4
No of credits: 4

Course Objectives:

1. To enable students to understand the history and evolution of textile production
2. To examine and learn the spinning and weaving processes.
3. To impart skills in fabrication of textiles.

Unit I **Spinning** – meaning and types, **Hand spinning** - character of hand spun yarn and significance of Indian handlooms. **Machine spinning** - Steps involved and types, Difference between handspun and machine spun fabrics. **Yarn:** Definition, classification, spun, filament, carded, combed, yarn twist and types, yarn numbering, yarn count, yarn hairiness, yarn defects. Fancy yarn – parts, classification, significance. Sewing thread. **Preparation of yarn for weaving*** - winding, warping (direct and indirect), sizing/ slashing and tying in/drawing in. **15 hrs**

Unit II **Weaving: History** – Horizontal, backstrap, handloom, power loom, Sequence of operations in weaving. **Weaving mechanism**: primary (shedding, picking, beating up), secondary (take up and let off) and auxiliary loom mechanism, **Types of weaves and its characteristics** – basic (plain, rib, basket, twill -left, right, diagonal, satin and sateen) and fancy weaves (swivel, spot, pile - cut and uncut, double cloth, leno and crepe) **Selvedge formation techniques*** – Fringed, shuttle, leno and tucked in. **15 hrs**

Unit III **Classification of weaving machines: Single phase weaving machine:** Shuttle: Hand loom and Power loom, Shuttle less - Projectile (single and multiple), Rapier (Rigid, flexible and telescopic), Jet (Water jet and air jet – single and multi-air-jet) **Multiphase weaving machine*:** Warp wave, Filling wave – circular and flat **10 hrs**

Unit IV **Dobby:** Scope of dobby, types (lattice and barrel), difference between positive and negative dobby, working, end use and properties of dobby, **Jacquard:** History, types, character of jacquard weave, fabric names, card cutting and lacing (hand and machine), **point paper design*** **10 hrs**

Unit V **Preparation of samples in production lab:** Record will hold a sample of carded, combed, blended yarn along with a sample of woven and knitted fabric. The needle punched and thermal bonded sample. Swatch of point paper design and **a prototype card cutting sample***. **10 hrs**

***Self Study**

Total Hours: **60 hrs**

References:

Text Books:

1. **Faheem Uddin, (2019).** Textile Manufacturing Processes, IntechOpen, United Kingdom.
2. **Lord, P. R. (2018).** Handbook of Yarn Production: Technology, Science and Economics, Elsevier Science, United Kingdom.
3. **Deepali Rastogi and Sheetal Chopra (2017).** Textile Science, Orient Blackswan Pvt Ltd, India
4. **Seema Sekhri, (2011).** Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning Pvt Limited., New Delhi.

Reference Books:

1. **Subramanian Senthilkannan Muthu (2018).** Textile Science and Clothing Technology, Springer Publishing, E Book
2. **Rastogi, D, Chopra, S., Arora, C. & Chanchal (Eds.). (2016).** Textile Science-A Practical Manual. New Delhi, India: Elite Publishing House Private Limited.
3. **Ingrid Johnson, Allen C. Cohen, Ajoy K. Sarkar, J.J, (2015).** Pizzuto's Fabric Science, Bloomsbury Academic, London.
4. **Hayavadana.J, (2015).** Woven Fabric Structure Design and Product Planning, Wood head Publishing India Pvt Ltd, India.

Course Outcomes:

1. Identify the types of spinning and weaving.
2. Explain yarn and fabric formation methods.
3. Compare and distinguish various yarns and fabrics.
4. Evaluate yarn and fabric properties.
5. Develop yarn and fabric samples.

CO /PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO1	PSO2	PSO3
CO 1	3	-	-	-	1	-	1	-	-
CO 2	2	3	-	-	-	-	1	-	-
CO 3	2	1	-	-	-	-	-	2	-
CO 4	-	-	2	1	2	-	-	1	1
CO 5	-	-	2	2	1	1	1	2	1

Semester I **Advanced Textile Processing**

25MTFC03 **Hrs of instruction/week: 4**

No of credits: 4

Course Objectives:

1. To gain knowledge in advancements in textile processing.
2. To understand the concepts of bio-processing and effluent treatments.
3. To acquire knowledge in effluent generation and treatment.

Unit I **Textile Dyeing:** Preparatory processing- Need for processing. Desizing, scouring, bleaching, mercerizing and degumming. Classification of dyes – Natural and synthetic. Theory of dyeing. Stages of dyeing - Fiber, Yarn, Fabric and Garment. Types of Dyeing Machine - Types, Soft flow, jigger machine, Winch, jet, Padding Mangle, HTHP beam dyeing machine. **Recent developments in dyeing***- Ultrasonic dyeing, Microwave assisted dyeing, super critical carbon dioxide dyeing. UV, plasma and ozone induced coloration. **15 hrs**

Unit II **Textile Printing:** Introduction, Preparation of printing paste. Styles of printing- Direct - block, stencil, screen, roller, duplex, rotary and transfer printing. Resist – batik, tie and dye. Discharge printing. Minor printing methods- flocking, marbling, blotch, jet- spray, digital printing, photo printing, warp printing and air brush printing. After treatment of printed fabrics. **Emerging techniques in printing*** **10 hrs**

Unit III **Textile Finishing:** Classification of finishes. Basic finishes- Calendaring, tentering, stiffening, weighting, carbonising, crabbing, decating, beetling, glazing, embossing, moiering, napping. Special finishes-Water repellent, flame retardant, anti- microbial, UV protection, fragrance finish, crease resistant, crepe and crinkle effect, softening. Introduction to plasma and **finishing techniques*** **15 hrs**

Unit IV **Textile Bio-Processing:** Enzymes–Introduction, Mechanism of action. Factors affecting enzyme activity- pH, temperature, substrate concentration and enzyme concentration. Application in textile processing - Bio-desizing, Bio Scouring, Bio Bleaching, Bio-polishing, Denim Fading, Flax retting and degumming. Role of enzymes in detergents. **Enzymes in treatment of textile dye effluent*.** **10 hrs**

Unit V **Textile Effluent Generation and Treatment:** Source of Effluent generation, characteristics of Sizing, desizing, scouring, bleaching, mercerizing, dyeing, printing and finishing effluents. Effluent treatment- Primary treatment-screening, sedimentation, equalization, neutralization, coagulation. Secondary treatment- activated sludge process, trickling filtration, aerated lagoons, anaerobic digestion. Tertiary treatment- evaporation, reverse osmosis, dialysis, ion exchange, chemical precipitation. **Activated carbon treatment*.** **10 hrs**

***Self Study**

Total Hours: 60 hrs

**** Visit to Textile wet processing units /Sericulture sector/ Clusters/ Exhibitions**

References:

Text Books:

1. **Deepali Rastogi and Sheetal Chopra, (2017).**Textile Science, Orient Blackswan Pvt. Ltd., Hyderabad, India.
2. **Manivasakam N, (2016),**Industrial Effluents–Origin, Characteristics, Effects, Analysis and Treatment, Chemical Publishing Company, US.
3. **Abhijit Majundar, Apurba Das, R. Alagirusamy and V.K. Kothari, (2012).**Process Control in Textile Manufacturing, Woodhead Publishing, USA.
4. **Arora.A, (2011).**Text book of Dyes, Sonali Publications, New Delhi.

Reference Books:

1. **Vigo.T., (2013).**Textile Processing and Properties: Preparation, Dyeing, Finishing and Performance, Elsevier Science, Netherlands.
2. **Tyrone L Vigo, (2013),** Textile Processing and Properties, Textile Science and Technology (Elsevier), USA.
3. **Asim Kumar Roy Choudhury, (2006).**Textile Preparation and Dyeing, Science Publishers, USA.
4. **Arturcavaco Paulo,(2003).**Textile Processing with Enzymes, Textile Institute, Wood Head Publishing Ltd, U.K.

Course Outcomes:

1. Identify and explain various dyeing, printing and finishing on textiles.
2. Execute pre and post treatment of textiles.
3. Compare and contrast bio processing and chemical processing.
4. Describe emerging techniques in textile processing and effluent treatment.
5. Select appropriate method of processing and finishing of textiles.

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	3	3	2	-	1	2	3	-	2
CO2	2	2	1	1	2	2	3	1	2
CO3	2	3	3	1	2	2	2	-	2
CO4	3	2	2	-	2	1	3	-	1
CO5	2	1	2	-	2	1	2	-	1

Research Methods and Statistical Applications

Semester I

25MTFC04 **Hrs of Instruction /week: 5**

No. of Credits: 5

Course Objectives:

1. To understand the fundamental principles and techniques of methodology concerning research
2. To use effective tools and techniques to collect research data, organize them appropriately for facilitating further analysis
3. To enable students to conduct research work, formulate synopsis and report writing

Unit I **Introduction to Research, Types of Research and Research Process** **10 hrs**

Definition, Objectives, significance and characteristics of research

Types of Research - Descriptive, analytical, applied, fundamental, quantitative, qualitative, conceptual, empirical and current types of research

Hypothesis – Definition, concepts, tests of hypothesis, Basic components of research design, Sampling design- Probability and non probability sampling methods

Unit II **Data and Tools of Data Collection** **11 hrs**

Primary and secondary data and data sources - Interview, observation, schedule and questionnaires – Definition, types, requirements, advantages, disadvantages, limitations, Census Vs Sample Survey, Pre-testing and pilot study, Editing and coding of data

Unit III **Organization and Representation of Data , Report writing** **12 hrs**

Classification - Definition, objectives, requisites, methods, qualitative, Quantitative; frequency distribution – definition, terms; discrete and continuous Tabulation of data- parts of a table, preparation of blank tables, Diagrammatic – One dimensional diagrams, two dimensional diagrams, pictogram and cartographs, Graphical- Frequency graphs- line , polygon, curve, histogram, Cumulative frequency graphs- ogives

Components or layout of a thesis (Self Study)

Unit IV **Descriptive Measures** **19 hrs**

Mean*, median*, mode* and their applications Measures of dispersion- standard deviation, coefficient of variation, percentiles* and percentile ranks*, Correlation coefficient* and its interpretation, Rank correlation*, Regression equations* and predictions. Association of attributes , contingency table

Unit V **Probability and Tests of Significance** **23 hrs**

Rules of probability and its applications , Normal, binomial –properties, importance in research studies, Wilcoxan Rank Test, Mann Whitnes U test, Kruskal Wallis Test Large and small sample tests -'t'*, F* and chi square tests* ANOVA* and applications, Multiple paired comparison test - DMRT test, Tukeys test, Statistical software – SPSS

*** Self Study**

Total Hours: **75 hrs**

References:

Text books:

1. **C.R. Kothari and Gaurav Garg, (2019).** Research Methodology: Methods and Technique, New Age International Publishers, 4th Edition.
2. **Lawrence, E. K., Adams, K. A, (2018).** Research Methods, Statistics, and Applications. SAGE Publications, United States.
3. **S.C._Gupta and VK Kapoor,** (2014). Fundamentals of Mathematical Statistics, Sultan Chand & Sons
4. **S. P. Gupta, (2012).** Statistical Methods, Sultan Chand & Sons.

Reference Books:

1. **Erich C. Fein, John Gilmour, Tanya Machin and Liam Hendry, (2022),** Statistics for Research students, Publisher- University of Southern Queensland, ISBN 13: 9780645326109
2. **Ghosh.B.N, (2015).** Scientific Methods and Social Research Sterling Publishers Pvt. Ltd. New Delhi.
3. **R. Lyman Ott and Micheal Longnecker, (2016),** An Introduction to Statistical methods and Data Analysis, 7th edition, CENGAGE learning, Boston, USA.
4. **Greenfield, T., & Greener, S. (2016),** *Research Methods for Postgraduates,* 3rd edition, Wiley, **ISBN:** 978-1-119-18684-2.

Course Outcomes:

1. List various research design and sampling tools.
2. Explain qualitative and quantitative research techniques.
3. Select appropriate statistical methods and pictorial representation.
4. Assess the numerical data for providing statistical evidences to support the research results.
5. Conduct need based research and analyse data with advanced softwares.

CO / PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3
CO 1	-	-	2	2	2	-	-	1	3
CO 2	-	3	2	2	2	1	-	1	3
CO 3	-	2	2	2	2	1	-	1	3
CO 4	-	2	2	2	2	-	-	1	3
CO 5	-	3	2	2	2	-	-	-	3

Fashion Portfolio (Practical)

Semester I
25MTFC05

Hrs of instruction/week: 6
No of credits: 3

Course Objectives:

1. To enable students to develop conceptual and artistic skills for visualizing and sketching fashion ideas
2. To enrich creativity by exploring inspiration themes and transforming them into unique design concepts
3. To enhance proficiency in garment making form ideation to execution, ensuring a strong design-to-product association

Unit I	**Fashion Research and Inspiration** – Sketching of silhouettes inspired from pre historic and ancient era for men, women and children's wear.	**15 hrs**
Unit II	**Visual Design Concepts** – Sketching male and female fashion figures- front, turned and back views. Sketching and Rendering, Rendering textures on garment, Sketching of garment details on croquie with suitable hair styles and accessories.	**15 hrs**
Unit III	**Sketching from Photograph and imagination** – Sketch fashion figures for men, women and children from photographs and manipulate for various occasions.	**20 hrs**
Unit IV	**Fashion Portfolio Presentation** – Development of fashion portfolio – customer profile, theme board, mood board, colour board, fabric board, flat presentation, story board and accessory board.	**20 hrs**
Unit V	**Construction of theme based garment** – pattern development, sourcing of materials and accessories, garment construction and fit analysis. Presenting theme based garment on ramp.	**20 hrs**
	Total Hours:	**90 hrs**

References:

Text Books:

1. **Albu, T., Nahum-Albright, M. (2023).** Fashion Portfolio, Quarks Publishing, United Kingdom
2. **Tiziana Paci, (2018).** Colour in Fashion Illustration: Drawing and Painting Techniques, Hoaki Books SL, Italy.
3. **Veronica Kemsky, (2017).** Fashion Illustration Gowns and Dresses Inspiration, Design Media Publishing Limited, UK.
4. **Navneet Kaur, (2010).** Comdex fashion design, Vol III, Designing and showcasing a fashion collection, Dream Tech Press, New Delhi

Reference Books:

1. **Anna Kiper, (2016).** Fashion Portfolio Design and Presentation, Pavilion Books, Batsford.
2. **Barrett, J. C. (2013).** Designing Your Fashion Portfolio: From Concept to Presentation, Fairchild Books, United States.
3. **Patrick John Ireland, (2005).** Fashion Design Illustration, Om Book International, New Delhi.
4. **Ritu Bhargae, (2005).** Fashion Illustration and Rendering, B.Jain Publisher Ltd, New Delhi.

Course Outcomes

1. Understand and express the inspired aspects from historic era
2. Visualize and render the materials through sketching
3. Articulate the sketching skills in manipulating garment requirements
4. Create professional fashion portfolio reflecting innovative style
5. Master technical drawing and garment making from inspired theme

CO / PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3
CO 1	3	-	3	2	1	-	3	3	-
CO 2	2	1	2	3	3	1	2	3	-
CO 3	2	-	1	1	1	-	3	3	-
CO 4	3	1	3	1	3	1	3	3	1
CO 5	1	1	2	1	1	1	2	2	1

Semester I **Dyeing and Printing (Practical)**

25MTFC06 **Hrs of instruction/week: 6**
No of credits: 3

Course Objectives:

1. To gain practical knowledge about preparatory process of fabric
2. To gain practical experience in dyeing and printing
3. To understand the finishing process given to fabric

Unit I	**Preparatory Process for Dyeing & Printing**– Desizing and determination of starch content, Scouring of desized cotton fabrics, Bleaching of scoured fabric with hydrogen peroxide and Mercerizing of cotton fabric Preparatory Process of Silk Fabric – Degumming, Bleaching.	**20 hrs**
Unit II	**Printing of woven and knitted fabric using different techniques** – Stencil, Screen, Block, Batik, Tie and dye style	**15 hrs**
Unit III	**Dyeing**- Dyeing cotton, wool, silk, polyester and blends using direct and reactive, vat, sulphur, acid, basic.	**15 hrs**
Unit IV	**Natural dyes**- Extraction, optimization and dyeing using plant, animal and mineral sources.	**20 hrs**
Unit V	**Finishing** - Anti-microbial finish, Bio-polishing finish using Plasma, Microencapsulation and Nano technique.	**20 hrs**

References: **Total Hours:** **90 hrs**

Text Books:

1. **Adrienne Rodriguez and Krishna Vejar (2020) Journeys in Natural Dyeing:** Techniques for creating color at home ABRAMS, New York
2. **P. Vinayagamurthi, S. Kavitha and D. Gopalkrishnan,(2018).** Textile Finishing: Basic Concepts and Application, Indian Books and Periodicals, New Delhi.
3. **Jeyakodi Moses. J,(2017).** "Laboratory Manual of Textile wet/chemical processing", Laser Park Publishing House, Coimbatore.
4. **Kapoor Seema,(2012).** Dyeing of Textile Material, Sonali Publications, New Delhi.

References Books:

1. **Asim Kumar Roy Choudhury, (2022).** Principles of Textile Printing, Taylor and Francis Ltd.
2. **Asim Kumar Roy Choudhury, (2016).**Textile preparation and dyeing, Science Publishers, USA.
3. **N.N. Mahapatre,(2016).** Textile Dyes, Woodhead Publishing India CRC Press, New Delhi.
4. M.L. Gulkajami, (2013). Advanced in the Dyeing and Finishing of Technical Textiles, Wood Head Publishing, Oxford Cambridge, Philadelphia, and New Delhi.

Course Outcomes:

1. Discuss various Dyeing, Printing on textiles
2. Implement Pre and Post treatment on textiles
3. Distinguish natural and synthetic processing
4. Decide suitable method of processing
5. Create various products using different processing methods

CO / PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3
CO 1	2	3	3	1	2	3	3	-	1
CO 2	2	2	2	2	1	2	2	-	2
CO 3	3	2	3	1	-	2	2	-	3
CO 4	2	2	2	2	2	1	3	-	2
CO 5	2	1	2	1	3	2	2	-	2

Semester II **Technical Textiles**

25MTFC07

Hrs of instruction/week: 4

Course Objectives: **No of credits: 4**

1. To orient students to the field of technical textiles.
2. To gain knowledge about types of technical textile.
3. To understand the application of textiles for technical applications.

Unit I **Technical Textiles** – Introduction, definition, scope, growth and development and future of technical textiles. Global and Indian technical textiles market. Woven, Knitted and non woven fabric structures. Electro spinning, 3d weaving / knitting – applications. **Upcoming techniques in fibers from** -Stinging nettle, Coffee ground, Lotus and Hemp, **yarn formation-** E-Thread technology – Stretchable Textile Yarn - Nomex, Kevlar, Spandex and Twaron and **Fabric formation-** Pinatex, Orange peel fabric, Econyl, Parblex, Algae-based fabric and Spinnova fabric* **10 hrs**

Unit II **Industrial and Package Textiles** – Industrial Textiles -Introduction, definition, types - decatising cloth, bolting cloth, absorbent glass mat battery separators, cigarette filter. Indutech Products- coated abrasives conveyor belts, drive belt, ropes & cordages, printed circuit boards, computer printer ribbon, paper making fabrics and filtration Products. **Package Textiles*** -Polyolefin Woven Sacks, Flexible Intermediate Bulk Containers (FIBC),Tarpaulins, Leno bags, Lamination, Jute Hessian and Sacks, Soft luggage products, Tea bags, Carpet Backing Cloth, Textile Reinforced Composite Materials and their applications. New innovations in Packaging- Seaweed Packaging, 3D-Printed Packaging, Cellulose-Based Materials, Paper used for Cosmetics, Moulded Fibre Printing, Plantable Packaging. **10 hrs**

Unit III **Geo and Filtration Textiles – Geo Textiles-** Introduction, Structure and performance, Nonpolymeric Fibres, High Performance Synthetic Fibres, newer fibres-geo synthesis, essential properties of geo textiles and **Standards for geo textiles-**IS 16653 : 2017, IS 16352:2015, IS 16090:2013, IS 16392:2015, IS 16393:2015*. **Filtration Textiles** - Introduction, Nano technical Fibres, Filters for Air Pollutants, solid liquid separation. Applications-Water filtration in paper manufacture, Air filters in air conditioning system and automobile engines, Vacuum cleaners, power stations, chemical plants, sewage disposal. **10 hrs**

Unit IV **Medical, Defence and Automobile Textiles : Medical Textiles** - Introduction- definition, scope, growth and types- implantable, non implantable materials, extra corporal devices and health care and hygiene textiles, fibres used and their properties. Nanotechnology in Medicine and Healthcare, Biocompatibility – Bioresorbability – Biostability, Textiles in orthopaedics- Acrylic bone cements, Bone fixation devices, total joint arthroplasties, knee pads, artificial tendons **Artificial Ligaments, Bones** Textiles in wound care- Surgical hosiery, bandages, wound care pads, Sutures, plasters, Textiles in Cardiology Tissue engineering, Vascular grafting Soft tissue implants Cardiovascular implants; Cardioverter Defibrillatore, **Artificial Kidney, Blood, Vessels, Liver. Medical textiles in Dermatology**- artificial skin, collagen, Medical textiles in Gynecology: bio-active and bio-inert polymers for closing surgical incisions, copper IUDs, the hormonal IUDs, contraceptive implants, vaginal rings, male and female condoms, Medical textiles in Audiolog-Cochlear Implants and Assistive Listening Devices. **Medical Textiles in Ophthalmology**- Pseudophakia, lens contact lens Ayurvastra or Ayurvedic textiles.
Defense Textiles for environmental protection, Chemical, Biological, Radiological, **15 hrs**

and Nuclear (CBRN) Protective Clothing thermal insulation materials, **camouflage concealment and deception, flame and heat protective textiles***, Ballistic and Sharp Weapon protective materials. **Survival textiles-** for tents, helmets, gloves, masks, survival bags and suits. **Automobile Textiles** -Aeronautical and Space Textiles- Carbon, Aramid/ Kevlar, Glass, Vectran, Carbon Nanotubes, Graphen fibres. Introduction, textiles in cars, other road vehicles (small and large vehicles), rail applications, **Textiles in aircrafts-** Seat belt Webbing, Air bags, Carpets, Rotor blades, Wings, Fuel Tanks, Webbing for aircraft, Aircraft upholstery, Para suits, Space shuttle, Space suits- Extra vehicular Mobility Unit, **Marine application-** Furnishing Fabrics, Inflatable Crafts, life rafts, buoyancy tubes, canopies and life jackets, and personal flotation devices, Hovercrafts Skirts, Oil Booms*.

Unit V **Home, Agro and Sports textiles -Home textiles***-Definition, fabrics used in exteriors and interiors, bed linens, floor coverings, wall coverings and window treatments, table, kitchen linens and bath linens. Textile in Architecture- New generation fibers, fabrics and structures. **Agro Textiles-** definition, newer fibres, fabrics and their applications, types in green house cover, Capillary Mats ,fishing nets, nets for plants, rootless plants and protecting grassy areas, sun screens, wind shields and anti bird nets. **Sports Textiles:** Introduction, Definition Special fibres, yarns and fabrics for sports textiles, high performance applications, active textiles, wearable technology. Sustainability and ecological aspects. **Application of textile in various sports- Artificial Turfs, Sports Net, Balls, Sports Footwear, Sports Net*** **15 hrs**

Total Hours: 60 hrs

***Self Study**

References:

Text Books

1. **Vinay Kumar Midha, Raul Fangueiro and S. Rajendran, (2025),** Emerging trends in Traditional and technical Textiles, select Proceedings of ICETT 2023, Springer.
2. **Indian Institute of Technology (2020),** Delhi, Technical Textile Industry in India: Opportunities and Challenges, Baseline study 2020, Ministry of Textiles, Government of India.
3. **Roshan Paul, (2019).** High Performance Technical Textiles, Woodhead publishing.
4. **Jabbar, M., & Nawab, Y. (2023).** Recent developments in technical textiles. In Y. Nawab & K. Shaker (Eds.), Textile engineering: An introduction (pp. 159–178). De Gruyter Oldenbourg.

Reference books:

1. **Kunal Singha., Pintu Pandit., Subhankar Maity, (2023).** Functional and Technical Textiles, Elsevier Science, United Kingdom.
2. **A. Mukhopadhyay, Vinay Midha, (2021).** Recent Trends in Traditional and Technical Textiles: Select Proceedings of ICETT 2019. Springer, Singapore.
3. **Subhankar Maity, (2021),** Functional and Technical Textiles, Nova Science Publishers, ISBN: 978-1-68507-041-8
4. **Xiaoming Tao, (2019).** Advanced Technical Textile Products, CRC Press, United Kingdom.

Course Outcomes:

1. Understand the scope of technical textiles in various fields.
2. Classify various types of technical textiles.
3. Explain the applications of various technical textiles.
4. Establish skills in utilizing natural fibers for production of technical textiles.
5. Develop different technical textiles.

CO / PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3
CO 1	-	-	1	-	-	-	-	-	1
CO 2	-	-	1	-	-	-	-	-	2
CO 3	-	-	2	2	-	-	1	1	2
CO 4	-	1	2	2	-	-	-	1	2
CO 5	-	-	1	2	-	1	-	1	2

Knitting Technology

Semester II **Hrs of instruction/week: 4**

25MTFC08 **No of credits: 4**

Courses Objectives:

1. To study the basic principles and different types of knitting.
2. To learn the mechanism involved in weft and warp knitting.
3. To understand the type of knit structures.

Unit I **Introduction to Knitting** **10 hrs**

History, Difference between Weaving and Knitting*- Yarn quality requirement and properties of knitted fabrics. Hand knitting & Machine knitting - Classification of knitting - Principles of weft and warp knitting-Comparison of weft and warp knitting-Knitting Terms and Definitions. Knitting elements – Needles, Sinker, CAM, Cylinder, Dial. Yarn feeders – Spreader – Fabric take down- Drives and controls.

Unit II **Weft Knitting Machine** **10hrs**

Yarn passage, **Parts and function - Circular Knitting Machine***- Knitting Cycle of Latch Needle, Bearded Needle and Compound Needle. Rib knitting Machine - Needle gating - Needle Timings - Knitting Cycle. Interlock knitting Machine - Knitting cycle. Jacquard knitting – Pattern wheel, Pattern drum, Tape patterning devices, Electronic devices.

Unit III **Weft Knit Structures** **15 hrs**

Formation of knit, tuck and float stitches. Influence of loop length and shape on fabric properties. Basic weft knitted structures and fabric properties- Plain, Rib, Interlock and Purl structures - Derivatives of plain: La coste, Satin, Accordian fabrics, Fair Isle, Weft lock knit, plaiting. - Derivatives of Rib: Half cardigan, Full cardigan, Milano Rib. - Derivatives of Interlock: Eight lock, single pique, Ponte-di-Roma, Ottoman Rib.**Knitted fabric faults, their causes and remedies*.**

Unit IV **Flat and Socks Knitting** **10 hrs**

Flat knitting machines - Basic principles – Knitting elements - Classification of flat knitting machines. Yarn passage, parts and function. Production of various fabric designs with flat knitting machines. **Socks Knitting - Basic principles** *– Knitting elements - Yarn passage, parts and function of socks knitting machine. Knit a sample fabric in circular knitting machine.

Unit V **Warp Knitting** **15 hrs**

Comparison between warp knitting and weft knitting*. Classification of warp knitting. Warp knitting elements - Needle, Sinker, Guide, Pattern wheel. Yarn passage, parts and function - Tricot Knitting machine and knitting cycle - Raschel knitting machine and knitting cycle - Double needle bar knitting machine. Warp knitted structures: loop raised, satin, lock knit, two bar tricot, reverse lock knit, shark skin, queens cord, open Atlas, Closed Atlas.

***Self Study** **Total Hours: 60 hrs**

**** Visit to Knitting Unit/ Garment Manufacturing Unit/ Apparel Parks/ Testing Centers**

References:

Text Books:

1. **YordanKyosev, (2019).** "Warp Knitted Fabrics Construction" Taylors and Francis Group, CRC Press, England.
2. **Sadhan Chandra Ray, (2015).** "Fundamentals and Advances in Knitting Technology", Woodhead Publishing India, New Delhi.
3. **Parmar M (2013).** Knitting, Random Publications, New Delhi.
4. **D.B Ajgaonkar., (2006).** "Knitting Technology", Universal Publication Corporation, Mumbai.

Reference Books:

1. **K. Thangamani and S. Sundaresan, (2022).** Fabric Manufacturing Technology - Weaving and Knitting, CRC Press Taylor and Francis, England.
2. **Subhankar Maity, Sohel Rana, PinkyPandit and Kunal Singha (2021).** Advanced knitting technology, the Textile Institute book series, Woodhead publications, united kingdom
3. **D.J.Spencer, (2014).** "Knitting Technology: A Comprehensive Handbook and Practical Guide", 3rd edition,Woodhead Publishing Limited, Cambridge.
4. **Ray, (2011).** Fundamentals and Advances in Knitting Technology, Woodhead Publications, United Kingdom.

Course Outcomes:

1. Understand the basic principles and mechanism of knitting production
2. Classify knitted fabric production methods
3. Execute acquired knowledge to identify different knitted structures
4. Compare different warp and weft knitted methods
5. Create new designs for knitted fabrics based on the acquired knowledge

CO / PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3
CO 1	3	2	2	2	1	1	3	-	-
CO 2	3	3	2	1	1	2	-	3	-
CO 3	3	1	2	2	2	-	-	3	-
CO 4	2	-	2	2	2	-	-	3	-
CO 5	2	2	3	1	2	2	-	3	-

Sustainable Fashion and Textiles

Semester II
25MTFC09

Hrs of Instruction/ Week: 3
No. of Credits: 3

Course Objectives:

1. To learn the concepts of sustainable fashion and textiles.
2. To impart knowledge in sustainable processing, production, and retailing.
3. To understand the major environmental concerns related to textile production.

Unit I **Introduction to Sustainability in Fashion:** Sustainable fashion in relation to Sustainable Development Goals. Key components of sustainable fashion and clothes, environmental impact of the fashion industry, initiatives for sustainable fashion, market size and consumer awareness for sustainable fashion. 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, Zero waste design practice, production and use of sustainable materials. Scope of sustainable fashion industry - Brands promoting sustainable fashion. Need for circular fashion, Challenges and Opportunities in Sustainable Fashion. **10 hrs**

Unit II **Sustainable Fashion Trend**: Sustainable fashion concepts – new fashion ethic and aesthetics, reversing fashion consumption, Locally made and globally relevant, nega demand (negative demand),sharing and servicing. Fast fashion vs slow fashion, new normal, sustainable fashion supply chain, Fashion Logistic, sustainable Clothing care. Sustainable Practices in Fashion Manufacturing - Circular Economy in Fashion, Upcycling, Sustainable Textile Materials, ERP in the Fashion Industry. **10 hrs**

Unit III **Sustainable Textile Production**: Sustainable factors in yarn and fabric manufacturing, waste management in spinning and fabric manufacturing. Sustainability in Textile dyeing and Processing: Use of bio colourants for textile dyeing and finishing. Advancements in natural dyeing – sources and extraction, application, performance of natural dyes, assisted dyeing techniques - Use of enzymes, Use of chitosan, Use of ionic liquids, Plasma pretreatment, Ultrasound application, ecological aspects and key consideration of natural dyes. Advantages and limitations of natural finishes, Major natural finishing agents, application techniques, sustainable developments in natural finishes. Environmental and economic aspects of natural dyes. **10 hrs**

Unit IV **Textile waste and recycling :** Introduction to waste, Classification of textile waste, waste management strategies -reuse, repairing and recycling.
Recycling technologies - History of upcycling, open and closed recycling methods, National and International scenario in Textile recycling, methods of recycling technologies adopted by the brands, methodologies for upcycling. LCA of textiles and clothing - Carbon foot prints in textile industry, Eco testing of textiles and Eco certification for textiles. **10hrs**

Unit V **Sustainable fashion business model:** Forms of sustainable fashion , Pillars of sustainable business model, sustainable fashion brands in India and abroad, marketing sustainable fashion, sustainable material directory, differences between eco fashion, sustainable fashion, slow fashion, and green washing, examples of green washing in marketing. **5 hrs**

Total Hours: 45 hrs

References:

Text Books:

1. **Rajkishore Nayak, (2019).** Sustainable Technologies for Fashion and Textiles, Woodhead Publishing, UK.
2. **Claudia E. Henninger , Panayiota J. Alevizou, & Helen Goworek, (2017).** Sustainability in Fashion - A Cradle to Upcycle Approach, Palgrave Macmillan - Springer Nature, Switzerland.
3. **Subramanian Senthilkannan Muthu, (2017).** Textiles and Clothing Sustainability Recycled and Upcycled Textiles and Fashion, Springer, Singapore.
4. **Jennifer Farley Gordon, Collean hill, (2014).** Sustainable Fashion: Past, Present and Future, Bloomsburry Publishing, London.

Reference Books:

1. **Rajkishore Nayak ,(2023).** Sustainable Fibers for Fashion and Textile Manufacturing , Woodhead Publishing, United States.
2. **Jochen strable, (2016).** Green Fashion Retail, Springer Publication, UK.
3. **Subramanian Senthilkannan Muthu, (2015).** Handbook of Life Cycle Assessment (LCA) of Textiles and clothing, Woodhead Publishing, UK.
4. **Thomas Bechtold, Rita Mussak, (2009).** Handbook of Natural Colourants, John Wiley and Sons Ltd, UK.

Course Outcomes:

1. Describe the need for sustainable fashion and textiles.
2. Adopt sustainable methods for fashion and textile production.
3. Relate fashion design process with sustainability in fashion consumption and trend.
4. Select sustainable textile design and processing methods.
5. Develop sustainable fashion/ textile products.

CO / PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3
CO 1	-	3	-	2	1	-	3	-	-
CO 2	2	-	2	3	2	-	2	2	2
CO 3	-	2	2	2	1	-	2	-	-
CO 4	2	2	2	2	2	-	2	-	2
CO 5	-	2	-	3	2	2	2	-	2

Textile Management

Semester II **Hrs of instruction/week - 3**

25MTFC10 **No. of credits - 3**

Course Objectives:

1. To understand the basic concept of management and apply them in textile industries.
2. To learn the concepts of management prevailing in garment industries.
3. To know about methods of managing various operations in textile industry.

Unit I **Textile and Human Resource Management** **10hrs**

Textile Management – Introduction to textile management, Approach of POM- Classical, Behavioural and Modelling approach. Operation strategies, Human Resource Management–Meaning, nature, objectives, scope and functions, importance of human factor, HRM department with reference to textile industry.

Unit II **Production Operation and Costing Management** **10hrs**

Manufacturing operations scheduling, work centers and its specifications, facility layout, workload and work assignments. Classification of Costing, Garment costing methods and techniques: Fiber, Yarn, Fabric, Accessories, Processing, Finishing, Sewing and packing.

Unit III **Training and Management Programme** **10hrs**

Training – Planning training programme, types of training: Induction Training, Job Training, Training for Promotion and Refresher Training, common training practices in the textile industry. Management development programmes – objectives and methods.

Unit IV **Sales Management and Forecasting** **7hrs**

Formating sales policies, structuring the sales force and its size, designing sales territories, fixing sales quotas and targets. Advertising and Sales Promotion methods, Logistics and Supply chain management. Sales Forecasting: Need, Methods - Qualitative and Quantitative methods, Selection of appropriate forecasting.

Unit V **Human Rights and Disaster Management** **8hrs**

Human rights – Definition, importance, fundamental rights. Human rights for women, children, workers in textile industry. Disaster Management–meaning, types of disaster, key components. Disaster management in textiles and apparel industry, its rescue and relief.

***Self Study** **Total Hours: 45hrs**

References:

Text Books

1. **Elsasser, V. H., & Kadolph, S. J. (2023).** *Textiles: Concepts and principles* (4th ed.). Pearson Education: Boston, MA.
2. **Kadolph, S. J., & Langford, A. L. (2022).** *Introduction to textiles* (3rd ed.). Pearson Education: Boston,
3. **N.Gaither and G.Frazier, (2014)** Operation Management, Thompsan, Asia,
4. **S.A.Chunwala and D.R.Patol, (2014),** Production and Operation Management, Himalayas Publishing House.

Reference Books:

1. **R. Rathina moorthy, R. Surjit, K. J. Vishnu Vardhini, (2024),** Handbook of Textile and Apparel Costing, Woodhead Publishing India Pvt.Ltd.
2. **Manjinder Singh, Mukesh chauhan (2020),** Cost Management, Himalaya Publishing House.
3. **S N Chary,(2019)** Production and Operations Management, McGraw Hill India Publishing
4. **Krishna moorthy, R. (2019)** Basics of Human Resource Management, Himalaya Publishing House.

Course Outcomes:

1. Recognize various management operation strategies in textile industry.
2. Identify the functional operations of the management sectors in the textile industry.
3. Differentiate the management, development and training programme organized in the industry.
4. Select and categorize appropriate managerial forecasting and costing methods.
5. Formulate a productive management plan by integrating human rights with a well organized disaster management for various departments of the industry.

CO /PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	1	-	-	-	-	-		3	-
CO2	1	-	-	-	1	-	-	2	-
CO3	1	-	-	-	-	1	-	1	-
CO4	-	1	-	-	-	-	-	2	-
CO5	1	2	-	-	1	-	-	1	1

Textile Testing (Practical)

Semester II **Hrs of instruction/week: 4**

25MTFC11 **No of credits: 2**

Course Objectives:

1. To enable students to understand and apply fundamental principles of textile testing for quality control
2. To equip learners with technical skills for conducting standardized textile testing procedures
3. To enhance the ability to analyze and interpret test results for ensuring product quality

Unit I	**Fibre testing** – Methods of fibre sampling for testing, Fibre – length analysis, moisture content and moisture regain. Diameter	**10 hrs**
Unit II	**Yarn testing** – Lea strength, stress strain curves, Yarn appearance, Twist test, crimp of yarn from fabric	**10 hrs**
Unit III	**Woven fabric analysis – w**idth and length, bow and skewness,. **Fabric physical tests** – Ends and Picks per unit length, weight, thickness, stiffness, crease recovery, strength and elongation and drapability. **Serviceability tests** – resistance to pilling and abrasion. **Absorbency tests** - Drop, wicking, spray and sinking tests. Special test- flammability test, thermal conductivity test.	**10 hrs**
Unit IV	**Knitted and nonwoven fabric analysis – Knitted*** - Number of wales and courses, resistance to abrasion, resistance to pilling, bursting strength and dimensional stability. Nonwoven - strength, bending, weight, thickness and Absorbency tests	**15 hrs**
Unit V	**Colour fastness tests** – Colour fastness to sunlight – wet and dry crocking, wet and dry pressing. Perspiration – Acidic and alkaline, light washing and Colour measurement using spectrophotometer	**15 hrs**
	Total Hours:	**60 hrs**

References:

Text Books:

1. **Abher Rasheed, Ali Afzal, Faheem Ahmad, Sheraz Ahmad, (2017).** Advanced Textile Testing Techniques. CRC Press, United States.
2. **Booth J.E., (2018).** Principles of Textiles Testing, CBS Publishers and Distributors, New Delhi.
3. **Jewel Raul, (2005).** Textile Testing, APH Publishing Corporation New Delhi.
4. **Saville B.P., (2002).** Physical Testing of Textile, Wood Head Publishing Limited, England.

Reference Books:

1. **Amutha, K., (2016).** A Practical Guide to Textile Testing, Woodhead Publishing, India.
2. **Wang Lijing, (2016).** Performance Testing of Textiles, Methods, Technology and Applications, Woodhead Publishing, Elsevier Ltd, New Delhi.
3. **Elliot Brown Grover, Dame Scott Hamby, (2007).** Handbook of Textile Testing and Quality control, Textile Book Publishers, New York.
4. **Jinlian HU., (2008).** Fabric Testing, Wood Head Publishing, in Textiles, Cambridge, England.

Course Outcomes:

1. Understand and recall the concepts of textile testing.
2. Classify and select appropriate physical tests suitable for fibre, yarn and fabric.
3. Execute the testing methods and interpret data for assessing the textile properties.
4. Examine the textile properties to relate them for various purposes.
5. Investigate the basic and advanced properties pertinent to various end applications.

CO / PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	-	1	-	2	1	1
CO 2	2	-	-	-	2	-	3	2	-
CO 3	1	1	1	-	3	1	3	1	-
CO 4	1	-		-	2	2	3	1	2
CO 5	3	1	1	2	3	2	3	2	1

Fashion Accessories (Practical)

Semester II **Hrs of instruction/week: 6**
25MTFC12 **No of credits: 3**

Course Objectives:

1. To develop creativity in styling and making fashion accessories
2. To impart skills in fashion accessory making with suitable materials
3. To enable students to become fashion accessory designer

Documentation of accessory designs through portfolio with Ideation, Creative designing, Rendering textures and construction of selected accessories

Unit I	Carried accessories: Bag ,Pouch, Wallet	**15 hrs**
Unit II	Detachable accessories: Stole or Shawl, Hat or Cap, Shoulder pads or Tie or Collar	**15 hrs**
Unit III	Worn accessories: Jewelry , Belt ,Shoe or Slippers	**15 hrs**
Unit IV	Handcrafted accessories: Cuffs or Socks, Hair or Ear accessory, Brooches	**20 hrs**
Unit V	Exotic accessories: any one sustainable fashion accessory inspired based on culture/tradition/art forms	**25 hrs**
	Total Hours:	**90 hrs**

References:
Text Books:

1. **Alison Freer, (2018).** The Accessory Handbook: A Costume Designer's Secrets for Buying, Wearing and Caring for Accessories, Ten Speed Press, California.
2. **Katherine Lester, Bess Viola Oerke, (2013).** Antiques and Collectibles – 2113, Courier Corporation.
3. **Elizabeth Galton, (2012).** Jewelry Design: From Fashion to Fine Jewelry, AVA Publishing, Singapore.
4. **Robert Leach, (2012).** The Fashion Resource Book: Research for Design, Thames & Hudson.

Reference Books:

1. **Pintu Pandit, Shakeel Ahmed, Kunal Singha, Sanjay Shrivastava, (2021).** Recycling from Waste in Fashion and Textiles: A Sustainable and Circular Economic Approach, John Wiley and Sons, USA.
2. **Natalio Martin, (2013).** The Book of Fashion Accessories, Loft Publications, Barcelona.
3. **Dorling Kindersley, (2012).** Fashion -The Ultimate Book of Costume and Style, Published by Dorling Kindersley Limited; London.
4. **Steven Thomas Miller, (2012).** Drawing Fashion Accessories, Laurence King Publishing, London.

Course Outcomes:

1. Describe various types of fashion accessories
2. Sketch styles of fashion accessories
3. Use appropriate materials to make fashion accessories
4. Experiment the techniques for creating fashion accessories
5. Become a fashion accessory designer

CO / PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PSO 1	PSO 2	PSO 3
CO 1	3	2	2	-	2	1	2	2	2
CO 2	-	3	2	-	2	3	2	2	2
CO 3	2	2	2	-	3	2	2	2	1
CO 4	-	-	3	-	1	2	-	2	2
CO 5	-	3	2	-	2	3	1	2	3