

CONTENT OF THE CURRICULUM

I –SEMESTER

TECHNICAL TEXTILES

Generic Cluster Core: Theory

Course Code: 24PFT101

UNIT	CO. NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit 1	CO1	Identify textile fibers used in technical textiles products	K1 -K4
Unit 2	CO2	Understand the various applications of Technical Textiles	K1 - K4
Unit 3	CO3	Apply their knowledge about contribution of technical textiles in various fields	K1- K5
Unit 4	CO4	Analyze the different types of technical textiles products in the market.	K1- k5
Unit 5	CO5	Design products for the application of technical textile products in the industry.	K1 – K5

K1- Remember **K2-**Understand **K3-**Apply **K4-**Analyze **K5** - Evaluate **K6-**Create

SYLLABUS

Unit-I INTRODUCTION TO TECHNICAL TEXTILES

Introduction, Definition and scope of technical textiles, classification and application of technical textiles. Technical Fibers: High-Strength and high-modulus organic fibres, High chemical and combustion - resistant organic fibers, High performance inorganic fibres, Ultra-fine and novelty fibers. Technical fabric structure- woven and non-woven fabrics.

Unit-II MEDICAL TEXTILES AND GEOTEXTILES

MediTech: Introduction, Fibers used, Properties, Classification- Non – Implantable, Implantable, Extra corporal devices, Health care /Hygiene Products and Applications.

GeoTech: Definition and Scope, Fibers used and its properties, Areas of application.

Unit-III AGRO AND PROTECTIVE TEXTILES

Agro Tech: Definition and Scope, General property requirement of Agro textiles, fibers used for Agro textiles, Areas of application.

ProTech: Introduction, Fibers Used, types, functions and properties, characteristics and applications, Fire protective clothing, Heat resistant garments, Waterproof Materials, Ballistic resistant vest. Biological and Chemical Vest and Military Protective Clothing.

Unit-IV MOBILE, INDUSTRIAL AND PACK TEXTILES

Mobile Tech – Definition and areas of application (road vehicles, aircraft, marine), visible components - upholstery, seat belt, airbags and carpets; Concealed components - tire cords, hoses, belts, airbags, air and fuel filters, noise and vibration dampening and body panel reinforcement.

Indu Tech- Introduction, fibers used, Types, functions and properties, Characteristics and Applications in its field.

PackTech– definition and scope, types of products-polyolefin woven sacks,FIBC,lenobags, wrapping fabric, Jute sacks, teabags, soft luggage products.

Unit–V SPORTS AND SMART TEXTILES

Sport Tech – Definition and scope, properties of sports textiles, areas of application, moisture management, and Special fibers used.

Smart textiles- Components, classification-active smart, passive smart and very smart textiles and intelligent textiles-phase change materials, shape memory polymers, chromic and conductive materials, and its applications.

Text Books:

1. **Unit- 1** AR Horrocks and S C Anand, (2nd Edition, 2016), *Handbook of Technical Textiles Volume I*, Wood head publishing Ltd, England.
2. **Unit- 2** A R Horrocks and S C Anand (1st Edition, 2000), *Handbook of Technical Textiles*,Wood Head publishing Ltd, England.
3. **Unit-3** Richard Horrocks and Subhash C.Anand, (2nd Edition, 2016), *Volume2: Technical Textile Applications*, Wood Head publishingLtd, England.
4. **Unit- 4** Dr.S.Grace Annapoorani,(1st Edition,2017) *Technical Textiles and its Application*, , LASER Park Publishing House, India, 2017.
5. **Unit- 5** RSenthil Kumar, (1st Edition, 2013), *Textiles for Industrial Applications*, CRC Press.

PATTERN MAKING AND CLOTHING CONSTRUCTION

Generic/Cluster Core: Theory

Course Code: 24PFT102

Unit	CO. NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit 1	CO1	Draft basic patterns for various garment types, including skirts, blouses, dresses, pants, and jackets.	K1 - K4
Unit 2	CO2	Finish garments professionally, with, hems, and other construction elements	K1 - K4
Unit 3	CO3	Identify and resolve common fitting issues and construction challenges.	K1 - K5
Unit 4	CO4	Incorporate unique design elements and creative techniques into garment construction.	K1 - k5
Unit 5	CO5	Apply the principles of sustainable fashion and apply them in pattern making and clothing construction.	K1- k3

K1- Remember K2-Understand K3-Apply K4-Analyze K5-Evaluate K6-Create

SYLLABUS:

UNIT– I:

Introduction to Pattern Making:

Introduction to Pattern Making – Workroom Terms and Definitions – Fabric Terms, Land Marks – Balance Line Terms – Seams – Notches- Grain lines. Measuring Techniques for Industrial Form and Human Figures.

UNIT– II:

Methods of Pattern Making:

Methods of pattern making–Drafting–Draping and flat pattern making. Principles of Pattern Making, Drafting the Basic Patterns–The Basic Bodice Block–The Skirt–The Sleeve Draft. Styles created by shifting of blouse darts, adding fullness to the bodice, converting darts to seams and partial yokes and incorporating darts into seams forming yokes. Fitting –standards of a good fit, steps in preparing a blouse for fitting, checking the fit of a blouse, solving fitting problems in a blouse, fitting techniques.

UNIT– III: DrapingTechniques:

Preparation of dress form. Principles and methods of draping. Draping the Basic Patterns – Bodice, Skirt and sleeve drape. Transferring the Muslin Drape to Pattern Paper. Design through draping — Basic procedures for draping different types of blouse and skirts.

UNIT–IV: Flat Pattern Making:

Major Three types of Flat Pattern Making – Dart Manipulation by Pivotal method, Slash and Spread Method, Measurement method, Pattern drafting/ alteration for irregular figures, and persons with special physical needs, Commercial patterns- preparation, advantages and uses

UNIT–V: Pattern Grading:

Introduction to scientific grading – Pattern grading and its significance – grading to 1 size up or down –Grading to 4 sizes up or down – Grading techniques and methods. Pattern and procedure for constructing Knitted Garments – T-shirts – Track suits – Swim Suits.

Text Books:

1. Unit-1 Helen Joseph Armstrong.(2022). Pattern making for Fashion Design, (6thEdition), Pearson
2. Unit-2 Winifred Aldrich.(2022). Metric Pattern Cutting for Women's Wear, ,Wiley-Blackwell.
3. Unit-2 Pat Parish.Pattern. (2020).Cutting: The Architecture ofFashion,(2nd Edition),Bloomsbury Visual Arts
4. Unit-3 DK. (2020) .The Complete Book of Sewing :A Practical Step-by-Step Guide to Sewing Techniques, Revised Edition.
5. Unit-3 Anette Fischer.(2022). Sewing for Fashion Designers, (2nd Edition),Laurence King Publishing
6. Unit-4 Evelyn Mans field.(2021) Clothing Construction: Principles and Techniques (1stEdition), Fairchild Books.
7. Unit-5 Janet Ward and Martin Shoben.(2019). Pattern Cutting and Making Up (3rd Edition), Routledge.

WORLD COSTUMES – 24PFT103

Course Outcomes:

Unit	CO	Upon completion of the course the students will be able to	Cognitive level
Unit 1	CO -1	Know about the history of costumes	K1 – K4
Unit 2	CO -2	Understand the Traditional costumes of Asian countries.	K1 – K3
Unit 3	CO -3	Analyze the evolution of European costumes	K1 – K5
Unit 4	CO -4	Analyze and learn the roles of African costumes in various ceremonies.	K1 – K4
Unit 5	CO -5	Understand the current trend in world costumes	K1 – K5

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analyze **K5-** Evaluate **K6-** Create

Unit – I Introduction to world costume

History of costumes- Ancient Egypt, Greece, and Rome costumes, Costumes of Medieval and Renaissance period, 19th century and 20th century.

Unit – II Asian and European Costumes

Asian Costumes: Traditional costumes of India, Pakistan, Sri Lanka, China, Japan, and Korea.

European Costumes: Russia, Italy, Norway, Sweden, Denmark, Scotland, Germany, Spain, Belgium, Hungary, Poland and Ukraine.

Unit – III African Costumes

African Costumes: Lybia, Ethiopia, Kenya, Uganda, Tanzania, Botswana, Zimbabwe, Nigeria and Cameroon - The role of costumes in African weddings, festivals and dances – African tribal costumes and accessories.

Unit – IV French and American Costumes

French costumes: Men's and Women's Costumes of France – French costumes from 18th century to 20th century, American costumes: American costumes from 18th to 20th centuries.

Unit – V Current Trends in World Costumes

Current costumes of Asia, Europe, Africa, French and American countries.

Text Books:

- **Unit – I** Phyllis G. Tortora , 7th Edition (2021), *Survey of Historic Costume: A History of Western Dress* Sara B. Marcketti
- **Unit – II** Daniel Delis Hill 1st , Edition(2011 & 2003), *The History of World Costume and Fashion*, John Peacock
- **Unit – III** John Peacock , 5th Edition (2012), *Costume and Fashion: A Concise History*, Raoul d'Harcourt.
- **Unit – IV** Clive Hallett , 1st Edition (2012), *Traditional Clothing Around the World*, Amanda Johnston.
- **Unit – V** R. Turner Wilcox, 2007 (originally published in 1950), *Folk and Festival Costume: A Historical Survey with Over 600 Illustrations*, Dover Edition.

ADVANCED BEAUTY MAKE OVER-24PFT204

Course Outcome:

Unit	CO.NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit 1	CO1	Understand hair care principles and recommend suitable hair care products and treatments	K1-K4
Unit 2	CO2	Identify and analyse different skin types and conditions.	K1- K4
Unit 3	CO3	Analyze cosmetic product ingredients and their effects on the skin and hair.	K1-K5
Unit 4	CO4	Demonstrate the ability to apply makeup for various occasions, including every day wear, special events, and professional settings.	K1 –K5
Unit 5	CO5	Create a professional portfolio that includes before-and-after photos, detailed descriptions of techniques used, and client testimonials.	K1- K3

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analyze **K5-** Evaluate **K6-** Create

Syllabus

UNIT 1: INTRODUCTION TO BEAUTY AND SKINCARE

Introduction to Beauty and Skincare: Overview of the beauty industry, Importance of personal grooming and hygiene, Skincare basics: skin types and conditions.

UNIT 2: SKINCARE ROUTINE AND PRODUCTS

Daily skincare routine: cleansing, toning, moisturizing, Understanding and choosing skincare products, Practical session: Skincare assessment and routine planning.

UNIT 3: MAKEUP FUNDAMENTALS

Makeup Tools and Hygiene: Introduction to makeup tools and their uses, Importance of hygiene in makeup application, Maintenance and care of makeup tools

Foundation and Concealing Techniques: Skin preparation for makeup, Choosing the right foundation and concealer, Practical session: Applying foundation and concealer

Eye Makeup Techniques: Basics of eye shadow application, Eyeliner styles and application, Practical session: Creating various eye looks

Lip and Cheek Makeup Techniques: Lip liner, lipstick, and gloss application, Blush and contouring techniques, Practical session: Enhancing lips and cheeks

UNIT 4: ADVANCED HAIR STYLING

Creative Hair Styling: Advanced braiding techniques, Styling for special occasions, Practical session: Creative hair styling.

Hair Colouring Techniques: Basics of hair colouring and highlights, Safe practices for hair colouring, Practical session: Applying hair colour.

UNIT 5: PROFESSIONAL ETIQUETTE AND CLIENT COMMUNICATION

Professional Conduct: Communication skills and client consultations, Building client relationships and trust, Practical session: Role-playing client consultations.

Portfolio Development: Creating a professional portfolio, Photographing and showcasing work, Practical session: Portfolio presentation.

Text Books:

1. Unit I- Rae Morris, (2008) *Makeup* Edition: 1st Edition
2. Unit II- Kevyn Aucoin, (2000) *Face Forward* Edition: 1st Edition.
3. Unit III- Bobbi Brown (2008) *Bobbi Brown Makeup Manual: For Everyone from Beginner to Pro* Edition: 1st Edition
4. Unit IV – Gretchen Davis and Mindy Hall (2017) *The Makeup Artist Handbook* Techniques for Film, Television, Photography, and Theatre, Edition: 3rd Edition.
5. Unit V- Milady *Milady 2020 Standard Cosmetology* Edition: 13th Edition.

INTRODUCTION TO HOME SCIENCE

Elective: Theory

COURSE CODE: 24PFT213

UNIT	CO. NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit 1	CO1	Foundation of home science	K1 – K4
Unit 2	CO2	Understand the principles and practices of managing household resources.	K1- K4
Unit 3	CO3	Gain knowledge in nutrition and health for better family well-being.	K1 – K5
Unit 4	CO4	Explore human development and family relations	K1- K5
Unit 5	CO5	Develop skills in housing and interior design	K1- K3

K1- Remember K2-Understand K3-Apply K4-Analyze K5-Evaluate K6-Create
Syllabus

UNIT 1: Introduction to Home Science

Definition and scope of Home Science, Historical development and significance

UNIT 2: Human Development and Family Studies

Stages of human development (infancy to old age), Family structures and dynamics, Parenting and child-rearing practices

UNIT 3: Nutrition and Health

Basic concepts of nutrition, Nutritional requirements for different age groups, planning balanced diets

UNIT 4: Resource Management

Principles of resource management, Time and energy management, financial management and budgeting

UNIT 5: Housing and Interior Design

Principles of interior design, Planning functional spaces, Household equipment and maintenance

Text Books:

Unit 1 - **Premlata Mullick**, (2020), *Textbook of Home Science*, **S. Chand Publishing**.

Unit 2 - **Robert V. Kail and John C. Cavanaugh**, (2023), *Human Development: A Life-Span View* **SAGE Publications**.

Unit 3 - **B. Srilakshmi**, (2021), *Nutrition Science*, **New Age International Publishers**.

Unit 4 - **Frida Ramstedt**, (2021), *The Interior Design Handbook*, **Phaidon Press**.

Unit 5 - **Ruth A. Phelps**, (2019), *Family Resource Management*, **Pearson Education**.

CONTENT OF THE CURRICULUM

II –SEMESTER

CORE COURSE-IV
RESEARCH METHODOLOGY & STATISTICS

Contact Hours/Week: 5
Internal Mark: 25
Core : Theory

Credit : 04
External Mark: 75
Course Code :24PFT106

Course Outcomes:

Unit No.	CO. NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit 1	CO - 1	Understand the meaning, types, and significance of research, along with the research process and problem definition.	K1 – K5
Unit 2	CO - 2	Develop effective research designs, plans, and sampling techniques specific to the textile industry.	K1 – K5
Unit 3	CO - 3	Apply various methods for data collection and organize the data using classification, tabulation, and graphical representation.	K1 – K5
Unit 4	CO - 4	Prepare and evaluate research reports with proper formatting, referencing, and adherence to ethical standards like plagiarism checks.	K1 – K5
Unit 5	CO - 5	Analyze quantitative and qualitative data using statistical methods and tools like SPSS and Excel.	K1 – K6

K1- Remember K2-Understand K3-Apply K4-Analyze K5-Evaluate K6-Create

SYLLABUS

UNIT-I:Introduction to Research:

Meaning of Research, Types of Research-Significance of Research-Research Process: Defining the Research Problem- Sources, Identification, Selection and Statement, Review of related literature.

UNIT-II: Research Design:

Research Design – Meaning, Types of research design, Basic Principles of experimental designs. Developing a Research Plan related to Textile Industry. Sampling and its Techniques, Steps in sampling design, criteria for selecting a sampling procedure, Characteristics of a good sample design.

UNIT-III:Method of Data Collection:

Method of Data Collection – Observation, Questionnaire, Interview. Data Processing Collection, Classification, Tabulation, Graphical Representation and Data Analysis.

UNIT-IV:Research Report:

Research Report – Format of research report, Main body of the report, References and appendices, Style of writing, Typing the Report, Pagination, Tables and Figures, Evaluating the report. Plagiarism check.

UNIT-V:Data Analysis and Interpretation:

Quantitative Data Analysis – Descriptive statistics (mean, median, mode, standard deviation) – Inferential statistics (hypothesis testing, ANOVA, regression analysis).Qualitative Data Analysis – Thematic analysis – Content analysis – Focus

group data analysis. Statistical Software – Introduction to SPSS, Excel, and other data analysis tools.

Text Books:

1. **Unit I & III:** Research Methodology and Techniques by C.R. Kothari ,4th Edition, Year 2019,New Age International Publishers.
2. **Unit II & IV:** Research Design: Qualitative, Quantitative, and Mixed Methods Approaches by John W. Creswell, 5th Edition, SAGE Publications.
3. **Unit III & V:** The Craft of Research by Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams, 4th EditionYear 2016, University of Chicago Press.
4. **Unit V:** Introductory Statistics" by Prem S. Mann,9th Edition,Year2016,Wiley.

Core Course-V
ADVANCED TEXTILE WET PROCESSING

Contact Hours/Week: 5
Internal Mark : 25
Core : Theory

Credit : 04
External Mark : 75
Course Code : 24PFT105

Course Outcomes:

UNIT NO	CO.NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit 1	CO – 1	Describe the principles and advanced techniques in textile wet processing.	K1 – K5
Unit 2	CO – 2	Demonstrate an understanding of dyeing methods and apply advanced techniques	K1 – K5
Unit 3	CO – 3	Apply innovative printing technologies, including transfer, digital, and rotary screen printing, and evaluate their impact on sustainability and product quality.	K2 – K5
Unit 4	CO – 4	Analyse the role of functional and sustainable textile finishing techniques, including nanotechnology and smart textile applications.	K2 – K5
Unit 5	CO – 5	Assess environmental challenges in wet processing and design solutions utilizing green chemistry, eco-friendly certifications, and innovative practices.	K2 – K5

K1- Remember **K2-**Understand **K3-**Apply **K4-**Analyze **K5-**Evaluate **K6-**Create

SYLLABUS

Unit - I: Introduction to Textile Wet Processing

Overview of textile wet processing. Advanced pre-treatment processes: enzymatic, Ultrasound-Assisted, Desizing, scouring, bleaching, and mercerization, Processes.

Unit – II: Dyeing

Dyeing: Recent advancement in Direct, Vat, Sulphur, reactive, naphthol, acid and Basic and Disperse Dyes. Methods of dyeing, dyeing of blended and specialty fibers. Natural dyeing Sources, extraction- Methods of extraction. Mordants-definition, need, types, Mordanting techniques. Advanced dyeing processes: Continuous dyeing, jet dyeing and space dyeing. Color fastness, shade matching & environmental impact.

Unit – III: Printing

Printing: Principles of textile printing: Transfer, digital, and rotary screen printing. Garment printing DTF printing. Advances in printing technology: Ink formulations –HD, Plastisol and DTG white ink, printing on synthetic fibers. Environmental concerns in textile printing and sustainable practices. Quality control in printing: Registration, color fastness, and durability.

Unit – IV: Textile Finishes

Chemical finishing: Softening, water repellency, flame retardancy, and anti-microbial finishes. Mechanical finishing techniques: Calendering, sanforizing, and emerizing. Innovations in functional finishes: Smart textiles and nanotechnology applications. Sustainable finishing processes and eco-friendly alternatives.

Unit – V: Environmental and Sustainability Considerations

Water and energy consumption in wet processing. Effluent treatment and waste management in

textile processing. Green chemistry and eco-friendly chemicals in wet processing. Certification and standards for sustainable textile production (e.g., GOTS, OEKO-TEX). plasma treatment, Nano-finishing and foam finishing.

Text Books:

1. **Unit I:** Shenai, V.A. Technology of Textile Processing, Chemistry for Dyes and Principles of Dyeing, A Sevak Publication, Bombay, 1993
2. **Unit II:** Textile Dyeing and Coloration by J.R. Aspland, 1st Edition, 2001, AATCC
3. **Unit III:** Chemical Finishing of Textiles by W.D. Schindler and P.J. Hauser, 2nd Edition, 2004, Wood head publishing.
4. **Unit III:** Principles of Textile Finishing by Asim Kumar Roy Choudhury, 1st Edition, 2006, Wood head Publishing.
5. **Unit II & III:** Textile Processing: Dyeing, Printing, and Finishing by J.T. Marsh, 1997, 1st Edition, Textile Institute.
6. **Unit IV:** Textile Chemistry: Advances and Applications by V. Kothari and K. Saxena, 2021, 1st Edition, Springer.
7. **Unit IV:** Environmental Management in the Textile Industry by G. Bradt, 1st Edition, 2014, Woodhead Publishing.
8. **Unit V:** Textile Processing with Enzymes: Innovations and Applications by J. R. Clarke, E. P. Adams, Springer, 2019, 1st Edition

Core Course-VI
NON WOVEN TECHNOLOGY

Contact Hours/Week: 4

Internal Mark: 25

Core : Theory

Credit : 04

External Mark : 75

Course Code : 24PFT106

Course Outcomes:

Unit No.	CO.No.	Upon completion of this course the students will be able to	Cognitive Level
Unit 1	CO - 1	Understand the definition, characteristics, and classification of nonwovens.	K1 – K5
Unit 2	CO - 2	Understand web formation techniques such as parallel-lay, cross-lay, perpendicular-lay, air-lay, and wet-lay processes.	K1 – K5
Unit 3	CO - 3	Understand and evaluate bonding processes for nonwoven fabric production.	K1 – K5
Unit 4	CO - 4	Identify applications and printing techniques for nonwoven fabrics.	K1 – K5
Unit 5	CO - 5	Assess the mechanical properties and application suitability of nonwoven fabrics..	K1 – K6

K1 Remember **K2**-Understand **K3**- Apply **K4**-Analysis **K5**-Evaluation**K6**-Create

SYLLABUS

UNIT – I: Nonwoven:

Nonwovens - Introduction and Definitions, Elements of nonwovens, Raw materials used for nonwovens- PET fibres, nylon, silk, cotton and other natural fibres. Types of nonwovens. Utilization of nonwovens in various fields of technical textiles. Appropriate Properties required for various applications.

UNIT – II: Web Formation:

Sequence of nonwoven process, Fibre Preparation - Processing of raw materials- Fibre preparation, mixing and Carding process, Parallel-lay process, cross-lay process, perpendicular-lay process, air-lay process and Wet-lay process.

UNIT - III: Bonding Processes:

Mechanical bonding - needle punch process and hydro entanglement process. Thermal bonding - Principles of thermal bonding, calendar bonding process, Through-air bonding process. Chemical bonding - chemical binders and methods of binder applications. Adhesive bonding and resin bonding, Spun lace bonding.

UNIT - IV: Applications for Nonwoven:

Applications of Nonwoven: Use in garments - interfacing, stabilizers, linings, and padding. Applications in accessories- hats, bags, and shoes. Nonwoven fabrics in sustainable and disposable fashion. Technical applications- moisture-wicking, thermal insulation and smart textiles.

UNIT - V: Evaluation of Nonwovens:

Mechanical properties - Bursting Strength of Fabrics, Abrasion and Pilling Test of Fabrics, Bending, Rigidity, Air permeability, Compression, and Stiffness, Pore Size Distribution, Wetting and liquid absorption.

Text Books:

1. Unit I & II: Introduction to Nonwovens by P. A. D. A. E. Reichel, 2014, Edition: 1st, Elsevier.
2. Unit I & III: Nonwoven Fabrics: Manufacturing and Applications by Roger L. Brown, 2002, Edition: 1st, CRC Press
3. Unit I & IV: Nonwoven Fabrics: Theory, Fabric, and Application by J. W. S. Hearle, K. C. P. Wang, S. R. S. K. S. R. Zahradnik, 2018, Edition: 2nd, Wiley.
4. Unit III & V : Handbook of Nonwoven Filter Media by M. M. H. H. R. A. M. S. Callister, 2007, Edition: 1st, Elsevier

Elective Course-III
RESOURCE MANAGEMENT

Credit: 4

Internal Mark: 25

Core : Theory

Hours: 4

External Mark: 75

Course Code : 24PFT202

Course Outcomes:

Unit No.	CO.No.	Upon completion of this course the students will be able to	Cognitive Level
Unit 1	CO - 1	Understand the characteristics of resources and factors that influence their utilization.	K1 – K5
Unit 2	CO - 2	Comprehend the key definitions and importance of management in resource utilization	K1 – K5
Unit 3	CO - 3	Identify different types of decisions and the process involved in making them	K1 – K5
Unit 4	CO - 4	Use various tools and techniques for effective time management	K1 – K5
Unit 5	CO - 5	Develop strategies for efficient energy management in organizations.	K1 – K6

K1 Remember K2-Understand K3- Apply K4-Analysis K5-Evaluation K6-Create

SYLLABUS

Unit I: Introduction to Resource Management

Meaning, classification and characteristics of resources, factors affecting utilization of resources.

Unit II: Concepts of management:

Definition and importance of management. Management Process, Planning – Types and Importance. Controlling – steps in controlling, Evaluation – Types and Importance, Styles in management

Unit III: Decision making in management:

Definition and importance of decision making, Types of decision, Process of decision making, Methods of resolving conflicts, Motivating factors in decision making – values, goals and standards

Unit – IV: Management of Resources: Time

Time- Goals of time management, factors affecting time management, tools of time management, managerial process applied to time management.

Unit – V: Management of Resources: Energy

Energy- Goals of energy management, factors affecting energy management, managerial process applied to energy management. Work simplification – Definition, Mundell's classification. Ergonomic-Meaning, importance and basic ergonomic principles, Scope of ergonomics in modern society, Man-Machine-Environment system interactions.

Text Books:

1. **Unit I: M.G. Bender & C.L. Scott**, *Resource Management for Individuals and Families*, Pearson Education, 2019.
2. **Unit II & III: S.P. Robbins & M. Coulter**, *Principles of Management*, Pearson Education, 2020. **S.K. Mangal**, *Decision Making in Management*, McGraw Hill Education, 2017.

3. **Unit IV: H.J. Kettinger**, *Time Management for Personal and Professional Productivity*, Wiley, 2018.
4. **Unit V: C.L.W. Hill**, *Energy Management Principles: Applications, Benefits, Savings*, CRC Press, 2020.

Elective Course-III SUSTAINABLE TEXTILE AND FASHION			
Credit: 4		Hours: 4	
Internal Mark: 25		External Mark: 75	
Core	: Theory	Course Code: 24PFT205	

Course Outcomes:

Unit No.	CO. No.	Upon completion of this course the students will be able to	Cognitive Level
Unit 1	CO – 1	Understand the Sustainable Development Goals (SDGs) relevant to the textile and fashion industry.	K1 – K5
Unit 2	CO – 2	Gain knowledge of organic fiber production processes, including organic cotton, wool, silk, and bamboo.	K1 – K5
Unit 3	CO – 3	Identify red-listed textile chemicals, their sources, and alternative remedies.	K1 – K5
Unit 4	CO – 4	Recognize the importance of recycling and upcycling as sustainable practices in textile and fashion.	K1 – K5
Unit 5	CO – 5	Evaluate the role of eco-friendly fashion labels in promoting sustainability.	K1 – K6

K1 Remember **K2**-Understand **K3**- Apply **K4**-Analysis **K5**-Evaluation**K6**-Create

SYLLABUS

UNIT – I: Sustainable development goals

Introduction to eco-friendly and sustainable approaches to fashion textiles: Sustainable development goals for the textile and fashion industry. Overview of textile industry and sustainability practices for environmental, social and economic impacts across the textiles and fashion industry.

UNIT – II: Organic and Sustainable textile:

Organic fibre production & Processes; Organic cotton, wool, silk, bamboo, hemp, coir, kapok, Regenerated fibres- Lyocell, PLA, Recycled fibres- PET. Introduction to carbon footprints & Reduction of carbon footprints in textile processing and finishing; Difference between regular & green process in manufacturing, rules/ recommendations for using blue sign system & waste management for sustainable textiles & clothing.

UNIT – III: Eco-friendly processing and dyeing

Eco-friendly processing and dyeing, eco- standards, eco labelling: Eco- friendly chemical processing: Modern approaches to eco- friendly wet processing of woven and knitted clothing. Red listed textile chemicals, their sources and remedies. Eco- friendly dyes and their method of dyeing; Energy efficient production methods and processing techniques.

Unit - IV: Recycling and up cycling of textiles

Introduction and importance of recycling and up cycling for growing source of innovative design in the fashion and accessories, processing, production and their applications.

Unit - V: Sustainable Fashion Brands and Labels

Sustainable fashion designers, sustainable fashion brands, Eco-friendly fashion labels, Emerging trends in branding sustainable products.

Text Books:

1. **Unit I:** Fletcher, Kate. *Sustainable Fashion and Textiles: Design Journeys*, 2008, Earthscan
2. **Unit II:** R. P. Gupta, P. K. Thakur, *Sustainable Textiles: Life Cycle and Environmental Impact*, 2018, Elsevier
3. **UNIT III:** Christofer, Hipgrave. *Eco-Textile Labelling*, 2010, Textile Institute
4. **UNIT IV:** M. S. Park, *Recycled Fibres, Energy and Sustainability*, 2014, Woodhead Publishing.
5. **UNIT V:** P. D. S. Jones, *Sustainable Fashion Brands: Emerging Trends*, 2020, Routledge.

Elective Course-III
HIGH PERFORMANCE TEXTILES

Contact Hours/Week: 04

Internal Mark: 25

Core : Theory

Credit: 04

External Mark: 75

Course Code: 24PFT208

Course Outcomes:

Unit No	CO.NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit 1	CO - 1	Understand the principles of coating technologies and their role in enhancing textile functionality.	K1 – K3
Unit 2	CO - 2	Demonstrate the use of advanced coating techniques.	K1 – K4
Unit 3	CO - 3	Compare different coating methods and materials in terms of their effectiveness for specific smart textile applications.	K1 – K4
Unit 4	CO - 4	Critique the environmental and ethical implications of using advanced coatings in smart textiles.	K1 – K5
Unit 5	CO - 5	Design a smart textile product with specific functional properties using advanced coating techniques.	K1 – K6

K1 Remember K2-Understand K3- Apply K4- Analysis K5- Evaluation K6-Create
SYLLABUS

Unit – I: Introduction to Smart Textiles and Coating Technologies

Definition and types of smart textiles, Applications in healthcare, sports, automotive, and military sectors Principles of Coating Technologies - Coating methods, Properties of coatings (adhesion, durability, flexibility) Selection of materials for coatings

Unit – II: Functional Coatings for Smart Textiles

Conductive Coatings: Conductive polymers, Coating methods for conductivity, Applications in wearable electronics, sensors, and communication systems. Water-Repellent and Self-Cleaning Coatings: Super hydrophobic and oleo phobic coatings Nanotechnology in textile coatings, Applications in outdoor and military garments. Thermo-regulating Coatings: Phase change materials (PCMs) Thermochromics and photochromic coatings Integration of coatings for temperature control in textiles

Unit – III: Nano-Technology in Coatings for Smart Textiles

Nanomaterials for Smart Coatings: Nanoparticles, Nano-coating techniques, Effects of nanomaterials on textile properties (strength, conductivity, durability). Sensors and Energy Harvesting: Nanostructures for piezoelectric energy harvesting, Embedded sensors for health monitoring, Examples of Nano-coated textiles in wearable tech and medical applications.

Unit – IV: Phase Changing Materials

Flexible and Stretchable Electronics: Integration of flexible circuits and smart coatings, Conductive fabrics and stretchable sensors, Applications in fitness tracking, health monitoring, and military uniforms **Energy Harvesting Textiles:** Solar-powered textiles, Textiles for kinetic energy harvesting (e.g., piezoelectric textiles), Integration with wearable devices and mobile

electronics

Unit – V: Environmental and Sustainability Considerations

Eco-friendly Coating Materials: Biodegradable and non-toxic coatings Sustainable production processes. Recycling and End-of-Life Considerations: Challenges in recycling smart textiles, Strategies for the end-of-life management of coated textiles, Case studies on sustainable smart textile coatings

Text Books:

1. **Unit I:** Smart Textiles for Medicine and Healthcare by Subhas C. Jha, 1st Edition 2017, Elsevier
2. **Unit II:** Textile Coating and Laminating by P. S. M. Dunne, 1st Edition 2014, Wood head Publishing
3. **Unit III:** Nanotechnology in Textiles and Apparel by L. R. Weiner and M. S. A. Azzam, 1st Edition, 2015, Wiley
4. **Unit IV:** Flexible and Stretchable Electronics by Michael A. Stout, 1st Edition 2020, Springer.
5. **Unit V:** Eco-friendly Textile Dyeing and Finishing by M. M. Rajendran, 1st Edition 2019, Wiley

Elective Core-III
MARKET RESEARCH AND ANALYSIS

Credit: 4

Internal Mark: 25

Core : Theory

Hours: 4

External Mark: 75

Course Code: 24PFT211

Course Outcomes:

Unit No.	CO.No.	Upon completion of this course the students will be able to	Cognitive Level
Unit 1	CO - 1	Understand and apply key market research concepts and techniques.	K1 – K5
Unit 2	CO - 2	Design and implement qualitative and quantitative market research studies.	K1 – K5
Unit 3	CO - 3	Demonstrate critical thinking and problem-solving skills in marketing decisions.	K1 – K5
Unit 4	CO - 4	Analyze and interpret primary and secondary data to provide actionable insights.	K1 – K5
Unit 5	CO - 5	Evaluate the ethical implications of market research practices.	K1 – K6

K1 Remember **K2**-Understand **K3**- Apply **K4**-Analysis **K5**-Evaluation**K6**-Create

SYLLABUS

Unit 1: Introduction to Market Research

Overview of Market Research-Definition and scope of market research-Importance of market research in business and marketing-Types of market research: Exploratory, Descriptive, Causal; **Market Research Process**-Defining the research problem-Research design-Data collection methods; **Ethics in Market Research**-Ethical issues in data collection and reporting-Consumer privacy and data protection.

Unit 2: Scope of Market Research

Definition and Scope of Market Research-Importance and Objectives-Difference Between Market Research and Marketing Research; **Types of Market Research**-Primary vs. Secondary Research-Exploratory, Descriptive, and Causal Research; **Applications of Market Research**; Consumer Insights-Product Development-Market Segmentation-Brand Positioning; **Ethics in Market Research**-Privacy Concerns-Data Integrity-Ethical Guidelines

Unit 3: Fundamentals of Export and Domestic Marketing Research

Introduction to Market Research for Export and Domestic Markets-Definitions, Scope, and Importance-Differences between Export and Domestic Marketing Research-Role in

Strategic Decision-Making; **Market Environment Analysis**-Domestic Market Environment-International Market Environment (Political, Economic, Social, Technological, Legal, and Environmental Factors - PESTLE)

Unit 4: Presentation of Market Research Findings

Report Writing-Structure and components of a market research report-Presenting findings and recommendations; **Visualizing Data**-Graphs, charts, and tables for data presentation-Data visualization software and tools (e.g., Tableau, Power BI); **Communication of Findings**-Oral presentations to stakeholders-Developing executive summaries and recommendations

Unit 5: Applications of Market Research

Market Segmentation and Targeting-Use of research in identifying and targeting market segments-Consumer profiling and behavior analysis; **Consumer Behavior Analysis**-Factors influencing consumer decisions-Techniques to measure consumer preferences and attitudes; **Emerging Trends in Market Research**-Big Data and AI in market research.

Text Books:

1. **Unit I:** "Marketing Research: Contemporary Issues and Challenges" by Ahmed Tolba and Hady El-Kot
2. **Unit II & III:** "Principles of Marketing Research" by Scott M. Smith and Gerald S. Albaum.
3. **Unit IV & V:** "Applied Marketing Research" by Naresh K. Malhotra and Satyabhushan Dash.
4. **Unit V:** "The Market Research Toolbox: A Concise Guide for Beginners" by Edward F. McQuarrie

Core Laboratory-III
FABRIC STRUCTURE ANALYSIS LAB

Contact Hours/Week: 4
Internal Mark: 40
Core : Laboratory

Credit: 2
External Mark: 60
Course Code :24PFT303

Course Outcomes:

Unit no	CO.NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit 1	CO – 1	Analyze the structure and variations of basic weaves, including plain, basket, rib, satin, and sateen.	K1 – K6
Unit 2	CO – 2	Learn about the advanced weaving techniques used to create fancy weaves fancy weaves such as honeycomb, huckaback, crepe, terry, and leno.	K1 – K6
Unit 3	CO – 3	Evaluate the properties and structures of backed fabrics, extra warp/weft fabrics, and pile fabrics.	K1 – K6
Unit 4	CO – 4	Analyze the suitability of various warp-knitted fabrics in activewear, lingerie, and technical textiles.	K1 – K6
Unit 5	CO – 5	Evaluate the structural attributes and applications of interlock, rib, and purl fabrics.	K1 – K6

K1- Remember K2-Understand K3-Apply K4-Analyze K5-Evaluate K6-Create

SYLLABUS

UNIT–I Basic Weaves Analysis:

- Plain Weave
- Rib - warp rib, weft rib & matt rib
- Satin & Sateen

UNIT–II Fancy Weaves Analysis:

- Honeycomb weave
- Huckaback weave
- Crepe weave
- Terry weave

UNIT–III Backed & Pile Fabric Analysis:

- Warp backed fabric & Weft backed fabric
- Extra warp & Extra weft - Single color
- Warp pile fabric & Weft pile fabric

UNIT-IV Warp Knitted Fabric Analysis:

- Tricot
- Raschel
- Milanese

UNIT-V Weft Knitted Fabric Analysis:

- Single jersey
- Interlock

- Rib
- Purl

Text Books:

1. **UNIT I & II:** Structural Fabric Design by Author: Killen K. Lamb , Publisher: Longman, Year: 2012
2. **UNIT I & III:** Fabric Structure and Design by N. Gokarneshan, Publisher: New Age International, Publishers Year: 2009
3. **UNIT IV & V:** Principles of Knitting: Methods and Techniques of Hand Knitting says June Hemmons Hiatt, Publisher: Simon & Schuster, Publication Year: 2012

Core Laboratory-IV	
ADVANCED DRAPING AND CLOTHING CONSTRUCTION LAB	
Contact Hours/Week: 04	Credit: 02
Internal Marks : 40	External Marks : 60
Core : Laboratory	Course Code: 24PFT304

Course Outcomes:

Unit	CO.No.	Upon Completion of this Course the Students will be able to	Cognitive Level
I	CO - 1	Identify and Understand the Advanced draping techniques and fabric handling.	K1-K6
II	CO - 2	Apply draping techniques to create pleats, darts, tucks, gathers, and variations in neckline, armhole, and waistline.	K1-K6
III	CO - 3	Analyze the draping variation in different types of skirts	K1-K6
IV	CO - 4	Apply design principles to create garments that meet specific needs.	K1-K6
V	CO - 5	Create a unique, multifunctional garment that reflects individual creativity.	K1-K6

K1- Remember **K2-**Understand **K3-**Apply **K4-**Analyze **K5-**Evaluate **K6-**Create

SYLLABUS

UNIT–I Draping Bodice Variation

- Asymmetric bodice, cowl neckline, halter neck, half shoulder and princess seam

UNIT–II Dart manipulation

- Converting waist darts to side, shoulder, or neckline
- Dart Equivalents – Gathers, pleats, and tucks as substitutes for darts.

UNIT–III Draping of the following components

- Skirts-Variation in Flared Skirt, peg Skirt, layered Skirt.
- Princess dress.

UNIT–IV Need based garments

- Design and construct a garment for maternity wear / feeding wear.
- Design and construct garments for physically challenged people/ bed ridden.

UNIT–V Creative garments

- Construct a convertible garment
- Construct a innovative garment of your own

Text Books:

1. Unit I - Connie Amaden-Crawford, 2012, The Art of Fashion Draping, Fairchild Books.
2. Unit II - Karolyn Kiisel, 2013, Draping: The Complete Course, Laurence King Publishing.
3. Unit III - Helen Joseph-Armstrong, 2013, Patternmaking for Fashion Design, Pearson.
4. Unit IV - Alison Smith, 2015, The Sewing Book, DK Publishing.
5. Unit V - Natalio Martín Arroyo, 2021, Fashion Design Techniques: The Basics and Practical Application of Fashion Illustration, Promopress.

CONTENT OF THE CURRICULUM

III –SEMESTER

Core Course VII: Theory
24PFT107: KNITTING TECHNOLOGY

Contact Hours/Week: 5

Internal Mark: 25

Credit: 4

External Mark: 75

Course Outcomes:

Unit	Co. No.	Upon Completion of This Course the Students Will Be Able To	Cognitive Level
Unit 1	CO - 1	Explain the fundamental concepts and differences between weft and warp knitting	K1 – K5
Unit 2	CO - 2	Identify knitting elements, stitches, and analyze basic and special knit structures.	K1 – K5
Unit 3	CO - 3	Interpret the working mechanisms of various knitting machines	K2 – K5
Unit 4	CO - 4	Apply flat knitting technology for the production of complex structures.	K2 – K5
Unit 5	CO - 5	Evaluate knitwear production processes and suggest improvements using modern technology.	K2 – K5

K1- Remember K2- Understand K3- Apply K4- Analysis K5- Evaluation K6-Create

SYLLABUS

UNIT I: Introduction

Knitting – Definition, Classification. History of Knitting, Comparison between - knitting and weaving – knitted and woven fabrics. Characteristics of Knitted Goods.

Unit II: Knitting Terms and Elements

General terms of knitting – course, Wales, loop-knit, miss, tuck stitch- stitch density. Elements of Knitting – loop structure- needle loop, sinker loop, face loop, back loop needle. Machine gauge

Unit III: Machine Description

Machine description – frame – drive – needles – loop forming sequence of latch, spring Bearded, compound needles – sinkers - sinkers operation- cylinder – dial – cams- creels– feeders- fabric spreader – take down and winding mechanism.

Unit IV: Weft Knitting

Weft Knitting -Classification – Passage of yarn through single jersey circular weft knitting machine. Basic structure and properties weft knit structures – single jersey or plain – rib – interlock – purl.

Unit V: Warp Knitting

Warp Knitting-Classification– Passage of yarn through warp knitting machine. Basic structure and properties warp knit structures – Tricot, Rachel Simplex fabrics.

Text Books:

1. **Unit I-V: *Knitting Technology: A Comprehensive Handbook and Practical Guide*** by David J. Spencer – 4th Edition, 2021, CRC Press

2. **Unit I-V:** *Principles of Knitting: Techniques and Methods* by June Hemmons Hiatt – 3rd Edition, 2021, Touchstone

Reference Books:

1. **Unit I:** Spencer D.J., Knitting Technology, 3rd Edition, Pergamon Press, 2001.
2. **Unit II & Unit III:** Ajgaonkar D.B., Knitting Technology, Universal Publishing Corporation, 2004.
3. **Unit IV:** Chandrasekara, Fundamentals of Knitting, New Age International Publishers.
4. **Unit V:** David J. Spencer, Circular Knitting, Textile Institute.

Core Course - VIII**24PFT108: ADVANCED STANDARDS & QUALITY CONTROL****Contact Hours/Week: 4****Credit: 4****Internal Mark:25****External Mark:75****Course Outcomes:**

Unit	Co. No.	Upon Completion of This Course the Students Will Be Able To	Cognitive Level
Unit 1	CO – 1	Learn quality evolution and key international standards.	K1 – K6
Unit 2	CO – 2	Understand garment specs and quality checks in sampling.	K1 – K6
Unit 3	CO – 3	Explore eco-friendly practices and certifications in textiles.	K1 – K6
Unit 4	CO – 4	Identify care label systems and their importance in garments.	K1 – K6
Unit 5	CO – 5	Apply QC tools and technology in apparel production and supply chain.	K1– K6

K1- Remember K2- Understand K3- Apply K4- Analysis K5- Evaluation K6-Create**SYLLABUS****UNIT-I**

Introduction to quality control and standards: Evolution of quality, quality planning, quality control, quality assurance, total quality management-contributions of Deming, Juran and Crosby, Quality Management System- Organizing, planning and implementation. Quality standards: importance, benefits, levels and sources of standards- ISO, AATCC, ASTM, BS, BIS, DIN.

UNIT-II

Quality Specifications: Garment Standards and Specifications: Analysis of pre-sample specification of garment or apparel product, understanding quality assurance in terms of measurement, sewing operations and finishes as per the specification sheet and garments defect analysis. Role of quality in Sampling and pre-production – types of samples, pattern making, grading, preproduction meeting and pilot run.

UNIT-III

Eco management of textile and apparel industry: Global scenario, eco textiles, eco standards and certifications - ISO 14001, Eco-mark, Oeko Tex 100, GOTS.

UNIT-IV

Introduction to care labels – importance of care labels- Information in care labels-Care labelling symbols -Care labelling Systems- Advantages and disadvantages American, British and International Labelling. Eco-labelling-Quality and placing of care label in the garment.

UNIT-V

Quality Control and Assurance-Introduction-Quality Costs and Customer Returns Difference between Quality Assurance and Quality Control- Inspection Procedure Acceptance Quality Level (AQL)-Implementing Quality Control- Advanced in Quality Control- Integration of technology in quality control-Statistical Process control and control chart- Quality control in the supply chain and vendor management.

TEXT BOOK:

1. **UNIT I-V:** A Complete Guide to Quality Management Systems by *Craig Cochran*, 1st Edition 2017, Paton Professional.
2. **UNIT I-V:** Textiles: Care Labelling Code Using Symbols by *International Organization for Standardization*, 4th Edition, 2023, ISO.

REFERENCE BOOK:

1. **UNIT I-II:** Handbook of Textile Testing and Quality Control by *O. P. Agarwal*, 1st Edition, 2015, Wiley India.
2. **UNIT III:** The Fundamentals of Quality Assurance in the Textile Industry by *Stanley Bernard Brabham*, 1st Edition, 2019, CRC Press.
3. **UNIT IV-V:** Textile Sustainability: The Role of Eco-Labels by *Subramanian Senthil Kannan Muthu*, 1st Edition, 2017, Springer.,

Core Course - IX 24PFT109: FASHION BUSINESS START-UP	
Contact Hours/Week:4	Credit:4
Internal Mark: 25	External Mark: 75

Course Outcomes:

Unit	Co. No.	Upon Completion of This Course the Students Will Be Able To	Cognitive Level
Unit 1	CO-1	Define key terminologies related to business start-up and classify different forms of business	K1 – K5
Unit 2	CO-2	Identify sources of business ideas and evaluate the feasibility of fashion-related opportunities	K1 – K5
Unit 3	CO-3	Distinguish between small, medium, and large businesses, particularly within the fashion industry.	K1 – K5
Unit 4	CO-4	Interpret basic financial statements relevant to business operations.	K1 – K5
Unit 5	CO-5	Apply business etiquette and body language in professional interactions.	K1 – K5

K1- Remember K2- Understand K3- Apply K4- Analysis K5- Evaluation K6-Create
Syllabus

Unit 1: Business Start-Up and Business Theory

Business Start-Up: definitions and terms. Business Theories- Economic, Sociological, Psychological, and Resource-Based theories. Classification of Business- business types.

Unit 2: Business Ideas and Opportunities

Business Plan Preparation-Steps. Project Financing- funding sources and financial planning.
Identifying Business Opportunities- - market trends, government policies, and industry performance.

Unit 3: Small Business Management

Definition and classification of small, medium, and large industries. Strategic management: Vision, Mission, Objectives. Environmental analysis: PEST Framework, Porter's 5 Forces. Internal analysis: SWOT Framework. Competitive strategies: Cost Leadership, Differentiation, Focus. Value Chain Analysis. Technical and financial aspects of small business.

Unit 4: Financial Basics

Introduction to financial statements and management information systems. Working capital management and break-even analysis. Cost elements and margin of safety. Financial requirements for starting a business, with a focus on textile businesses.

Unit 5: Business Communication & Ethics

Communication in organizations: Types, processes, and barriers. Business etiquette and body language. Overview of business ethics. Ethical decision-making in the workplace. Managing ethical behaviour: Professional ethics vs. values and morals.

Text book:

1. **Unit I-V:** *Entrepreneurship Development* by S.S. Khanka, Revised Edition, 2021 S. Chand Publishing
2. **Unit I-V:** *Entrepreneurship* by Rajeev Roy, 2nd Edition, 2011, Oxford University Press

Reference Book:

1. **Unit I:** *Entrepreneurship Development and Business Ethics* by Biswa Mohana Jena, First Edition, 2022, Himalaya Publishing House.
2. **Unit II:** *Small Business Management: Launching & Growing Entrepreneurial Ventures* by Justin G. Longenecker, J. William Petty, Leslie E. Palich, and Frank Hoy, 18th Edition, 2017, Cengage India.
3. **Unit III:** *Launching & Growing Entrepreneurial Ventures* by Justin G. Longenecker, J. William Petty, Leslie E. Palich, and Frank Hoy, 20th Edition, 2022, Cengage Learning.
4. **Unit IV:** *Financial Statements & Present Value Models* by Lindon J. Robison, Steven D. Hanson, and J. Roy Black, 2nd Edition, 2021, Michigan State University Press.
5. **Unit V:** *Entrepreneurship Development and Business Ethics* by Biswa Mohana Jena, First Edition, 2022, Himalaya Publishing House.

Elective Theory : IV
24PFT214: ADVANCED COSTUME DESIGN

Contact Hours/Week: 4

Credit: 4

Internal Mark :25

External Mark:75

Course Outcomes:

Unit	Co.No.	Upon Completion of This Course the Students Will Be Able To	Cognitive Level
Unit 2	CO - 1	Analyze scripts and develop conceptual costume designs.	K1 – K5
Unit 3	CO - 2	Conduct historical and cultural research for accurate costume design.	K1 – K5
Unit 4	CO - 3	Apply advanced rendering and textile techniques.	K1 – K5
Unit 5	CO - 4	Construct special effect costumes using wearable technologies.	K1 – K5
Unit 5	CO - 5	Create a professional portfolio showcasing industry-relevant practices.	K1 – K6

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

Unit I: Advanced Design Principles and Script Analysis

Conceptualizing costume design for theatre, film, and performance-Script interpretation and character analysis-Research methodologies for historical and cultural accuracy-Mood boards and visual storytelling techniques.

Unit II: Historical and Cultural Costume Studies

Study of historical costume evolution and its influence on modern design-Cultural adaptation in costume design for global productions-Museum research, textile archives, and primary sources-Case studies of iconic period costume designs.

Unit III: Advanced Rendering and Textile Applications

Digital and traditional illustration techniques for costume sketches-Fabric manipulation, dyeing, and surface embellishment-Integration of digital tools (Photoshop, Illustrator, CLO 3D) in costume design-Understanding textile properties for costume durability and movement.

Unit IV: Costume Construction and Special Effects

Advanced draping, pattern making, and garment construction techniques-Exploration of wearable technology and smart textiles in costume-Special effects costumes (LED integration, fiber optics, prosthetics)-Costuming for fantasy, sci-fi, and avant-garde performances.

Unit V: Portfolio Development and Industry Practices

Creating a professional portfolio for theatre, film, and fashion industries -Budgeting and production management for costume departments-Collaboration with directors, set designers, and production teams-Ethical considerations and sustainability in costume design.

Textbooks:

1. **UNIT I-V: The Costume Designer's Handbook:** A Complete Guide for Amateur and Professional Costume Designers" by *Rosemary Ingham and Liz Covey* (2022)

Reference Books

1. **UNIT I: Deborah Nadoolman Landis** – *Dressed: A Century of Hollywood Costume Design*, Harper Design, 2012.
2. **UNIT II: Deirdre Clancy** – *Costume and Fashion: Drawing and Design for Theatre, Film and Television*, Crowood Press, 2014.
3. **UNIT III: Tina Bicat** – *Costume and Design for Devised and Physical Theatre*, Routledge, 2011.
4. **UNIT IV: Elizabeth McMahon** – *Digital Costume Design and Collaboration*, Focal Press, 2018.
5. **UNIT V: Phyllis G. Tortora** – *Survey of Historic Costume*, 6th ed., Fairchild Books, 2015.

Elective Theory : IV	
24PFT217: FASHION PAINTING AND PRINTING	
Contact Hours/Week: 4	Credit: 4
Internal Mark: 25	External Mark: 75

Course Outcomes:

Unit	Co. No.	Upon Completion of This Course the Students Will Be Able To	Cognitive Level
I	CO-1	Describe the evolution and principles of fashion painting and printing.	K1–K5
II	CO-2	Demonstrate traditional and hand-painted textile techniques.	K1–K5
III	CO-3	Apply manual and machine-based printing methods in design creation.	K1–K5
IV	CO-4	Assess sustainable innovations and digital printing techniques.	K1–K5
V	CO-5	Evaluate smart textile applications and predict future fashion trends.	K1–K5

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

Unit 1: Introduction to Fashion Painting and Printing

History and evolution of textile painting and printing; types of surface embellishment techniques; principles of design and color theory; motif development and pattern creation; aesthetic and commercial significance of printed textiles.

Unit 2: Traditional and Hand-Painted Textile Techniques

Hand-painting methods: brush painting, spray painting, Kalamkari, Madhubani, Warli art; resist techniques: tie & dye, batik, bandhani; cultural significance of regional textile painting styles; contemporary applications in high fashion.

Unit 3: Printing Techniques

Manual and Machine-Based – Block printing: wooden, metal, linoleum blocks; screen printing: hand screen, rotary screen; heat transfer and sublimation printing; textured printing techniques: flocking, foiling, embossed printing.

Unit 4: Digital Printing and Sustainable Innovations

Digital printing methods: direct-to-garment (DTG), pigment printing, 3D textile printing; eco-friendly and sustainable printing techniques; waterless printing, plant-based dyes, biodegradable pigments; zero-waste printing and upcycling strategies; case studies on sustainable fashion brands.

Unit 5: Future Trends and Smart Textile Printing

Smart textile printing: conductive inks, thermochromics and photochromic prints; wearable technology in printed fashion; augmented reality (AR) and AI-driven textile printing; market trends and consumer preferences in fashion printing.

Text Books:

1. **Unit I- V:** *Textile Printing* by Leslie W.C. Miles– Revised Second Edition, 2003, Society of Dyers and Colourists

Reference Books:

1. **Unit I:** *Color: A Workshop for Artists and Designers* by David Hornung – 3rd Edition, 2020, Laurence King Publishing
2. **Unit II:** *Resist and Batik: Modern Adaptations of Traditional Techniques* by Yoshiko Iwamoto Wada – 1st Edition, 2001, Kodansha
3. **Unit III:** *Digital Textile Design* by Melanie Bowles & Ceri Isaac – 2nd Edition, 2012, Laurence King Publishing
4. **Unit IV:** *Eco Colour: Botanical Dyes for Beautiful Textiles* by India Flint – 1st Edition, 2008, Murdoch Books
5. **Unit V:** *Fashion Futures* by Bradley Quinn – 1st Edition, 2012, Merrell Publishers

Elective Theory: IV	
24PFT220: BEAUTY THERAPY AND AESTHETICS	
Contact Hours/Week: 4	Credit: 4
Internal Mark: 25	External Mark: 75

Course Outcomes:

Unit	Co. No.	Upon Completion of This Course the Students Will Be Able To	Cognitive Level
Unit I	CO – 1	Understand the fundamentals of beauty therapy, including skin anatomy, hygiene, and ethics.	K1 – K5
Unit II	CO – 2	Understand about the application and elements of design.	K1 – K5
Unit III	CO – 3	Apply the Principles and different types of trimmings and accessories	K1 – K5
Unit IV	CO – 4	Analyze and Learn the color and its importance	K1 – K5
Unit V	CO – 5	Focus on the comprehensive skills and knowledge necessary for success in the fashion industry.	K1 – K6

K1- Remember K2- Understand K3- Apply K4- Analysis K5- Evaluation K6-Create
SYLLABUS

Unit 1: Introduction to Beauty Therapy and Aesthetics

Covers the fundamentals of beauty therapy, including skin anatomy, hygiene, and professional ethics. Explores different skin types, basic skincare routines, and the importance of maintaining a safe and hygienic salon environment.

Unit 2: Skin and Facial Treatments

Focuses on various skin treatments such as cleansing, exfoliation, steaming, and facial massages. Includes facial masks, anti-aging treatments, and the use of natural and chemical-based skincare products for different skin conditions.

Unit 3: Makeup Artistry and Techniques

Explores make up application techniques, including color theory, contouring, highlighting, and makeup for special occasions. Covers corrective makeup for different face shapes and skin tones, along with product selection and hygiene practices.

Unit 4: Hair Removal and Body Treatments

Covers various hair removal methods, including waxing, threading, and laser treatments. Includes body treatments such as body wraps, scrubs, and cellulite reduction therapies to enhance skin appearance and texture.

Unit 5: Advanced Aesthetic Procedures and Business Management

Introduces advanced beauty treatments such as microdermabrasion, chemical peels, and non-invasive cosmetic procedures. Includes aspects of salon management, client consultation, and marketing strategies for a successful beauty business.

Text Book:

1. **Unit I - V:** *The Art and Science of Beauty Therapy* by Alison R. Duffy – 2nd Edition, 2018, Nelson Thornes

Reference Books:

1. **Unit I:** *The Fundamentals of Beauty Therapy*, Jane Foulston, Hodder Education, 1st Edition, 2010
2. **Unit II:** *Facial Skin Care: A Practical Approach*, Rita Carter, Cengage Learning, 2nd Edition, 2015
3. **Unit III:** *Makeup: The Ultimate Guide*, Rae Morris, Allen & Unwin, 1st Edition, 2013
4. **Unit IV:** *Body Treatments and Spa Therapy*, Mo Rosser, Hodder Education, 2nd Edition, 2012
5. **Unit V:** *Advanced Beauty Therapy: A Guide for Level 3*, Lorraine Nordmann, Cengage Learning, 3rd Edition, 2015
6. **Unit V:** *Salon Management for Beauty Therapists*, Susan Cressy, Heinemann, 1st Edition, 2012

Core Laboratory – V
24PFT305: ADVANCED FASHION PORTFOLIO LAB

Contact Hours/Week:4
Internal Mark:40

Credit:2
External Mark:60

Course Outcomes:

Unit	Co. No	Upon Completion of This Course the Students Will be able to	Cognitive Level
Unit 1	CO - 1	Design and develop seasonal and occasion-based garments with a theme, including fashion show planning.	K1 – K6
Unit 2	CO - 2	Create a designer profile, inspiration, and mood boards to establish a creative design direction.	K1 – K6
Unit 3	CO - 3	Develop colour schemes, flat sketches, and illustrations to visualize and communicate design ideas.	K1 – K6
Unit 4	CO - 4	Compile swatch, trim, and accessory boards to support material selection and design aesthetics.	K1 – K6
Unit 5	CO - 5	Prepare specification sheets, customer profiles, and deliver a complete final portfolio presentation.	K1 – K6

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PS
CO1	1	1	2	-	1	-	-	2	1
CO2	3	3	2	1	-	2	2	1	2
CO3	-	2	-	3	-	1	3	1	1
CO4	2	-	-	1	-	1	-	-	-
CO5	1	-	3	-	2	1	-	3	2

UNIT: I Design garments for occasion/season-with a theme

- Fashion Show - with a theme – one ramp set.
- Winter Collection
- Summer Collection

UNIT: II Portfolio Presentation

- Theme Board
- Mood Board
- Forecasting Board
- Colour Board

UNIT: III Flat Sketch

- Swatch Board
- Accessory Board
- Flat Sketch Board

UNIT: IV Design Board

- Design Board

- Process Board
- Customer profile

UNIT: V Final Presentation

- Pattern making Board
- Garment construction Board
- Final Line - Up Board

Text Books:

1. **UNIT I – V:** Fashion Design: The Complete Guide by *John Hopkins*, 2020, Bloomsbury Visual Art 1st Edition
2. **UNIT I – V:** Fashion Portfolio: Design and Presentation by *Anna Kiper*, 1st Edition, 2019, Batsford.

Reference Books:

1. **UNIT I:** Fashion Design: Process, Innovation and Practice by *Kathryn McKelvey & Janine Munslow*, 1st Edition 2015.
2. **UNIT II:** Developing and Maintaining a Successful Career in the Fashion Industry by *Julia Yates*, 4th Edition, 2018
3. **UNIT III:** 9 Heads: A Guide to Drawing Fashion by *Nancy Riegelman*, 2019.
4. **UNIT IV:** Textiles and Fashion: Materials, Design and Technology by *Rose Sinclair*, 2015.
5. **UNIT V:** Technical Sourcebook for Designers by *Jaeil Lee & Camille Steen*, 2nd Edition, 2019

Core Laboratory – VI	
24PFT306: ADVANCED CAD IN FASHION INDUSTRY LAB	
Contact Hours/Week:4	Credit:2
Internal Mark:40	External Mark:60

Course Outcomes:

Unit	Co. No.	Upon Completion of This Course the Students Will Be Able To	Cognitive Level
Unit I	CO - 1	sign a range of garments tailored for men, women, boys, girls, and party wear.	K1 – K2
Unit II	CO - 2	Develop and apply textile motifs using various symmetrical, asymmetrical, and repeat techniques.	K1– K5
Unit III	CO - 3	sign fashion accessories and apply surface design techniques like batik, tie & dye, and prints.	K1 – K6
Unit IV	CO - 4	Create technical packs for knitted casual wear with specification and layout understanding.	K1 – K6
Unit V	CO - 5	Produce catalogues and layout designs for fashion shows using image editing tools and contemporary techniques.	K1 – K6

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

Unit- I

Designing apparel for

- Girls wear
- Boys wear
- Men's Wear
- Women's wear
- Party Wear

Unit- II

Motifs development: Symmetrical / asymmetrical, Balanced / Unbalanced repeat (arrangements) $\frac{3}{4}$ drop, $\frac{1}{2}$ drop, H/V, $\frac{1}{3}$ drop H/V, $\frac{1}{4}$ drop H/V Drop Reverse, design placements on borders, pallu & all over.

Unit - III

Accessory Designing - Hand bag, Footwear, Hat Garment designs with special effects – Batik, Tie and Die, Block, Print, Checks and stripes.

Unit-IV

Garment Tech Pack Design – Knitted casual wear.

Unit- V

Layout Design, Catalogue Design–Image Editing & Special effects, Collage

Text Books:

1. **Unit I – V: CAD for Fashion Design and Merchandising by Stacy Stewart Smith, 1st Edition, Fairchild Books, 2023.**
2. **Unit I – V: Fashion Computing: Design Techniques and CAD by Sandra Burke, 3rd Edition, Burke Publishing, 2021.**

Reference Books:

1. **Unit I:** *Apparel Design and Fabrication*, Julie Cole, Fairchild Books, 3rd Edition, 2018
2. **Unit II:** *Textile Designs: 200 Years of Patterns for Printed Fabrics*, Susan Meller & Joost Elffers, Abrams, 1st Edition, 2002
3. **Unit III:** *Surface Design for Fabric*, Kim Thittichai, Batsford, 1st Edition, 2009
4. **Unit IV:** *Tech Pack Handbook for Fashion Designers*, Adriana Gorea, Bloomsbury Publishing, 1st Edition, 2021
5. **Unit V:** *The Fashion Designer's Textile Directory*, Gail Baugh, Barron's Educational, 1st Edition, 2011
6. **Unit V:** *Fashion Show and Catalogue Design*, Tammy R. Robinson, Fashion Design Press, 2nd Edition, 2016

IV SEMESTER

**Elective Theory-V
(Self-Study)**

24PFT203: HOUSING AND INTERIOR DESIGN

Contact Hours/Week: 5

Credit: 4

Internal Mark: 25

External Mark: 75

Course Outcomes:

Unit	Co. No.	Upon Completion of This Course the Students Will Be Able To	Cognitive Level
Unit I	CO-1	Understand the dimensions, psychological effects, and application of colour schemes for interior and product design.	K1 – K5
Unit II	CO-2	Gain knowledge of basic Vastu Shastra concepts, landscaping, and construction materials relevant to design.	K1 – K5
Unit III	CO-3	Analyze the importance and types of lighting and ventilation.	K1 – K5
Unit IV	CO-4	Evaluate the physiological cost of work and apply motion and energy studies in workplace layout.	K1 – K5
Unit V	CO-5	Identify and apply principles for the selection and arrangement of furniture for different rooms.	K1 – K5

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

UNIT: 1

Design fundamentals – elements of art, principles of design, principles of composition. Colour - dimensions of colour, psychological effects of colour, colour schemes, factors affecting use of colour.

UNIT: 2

Space planning and design-housing need and important, principles of planning spaces, types of house plans, economy in construction, planning for different income groups. Introduction to basis of Vastu shashtra. Concept of Land Scaping. Building and finishing material.

UNIT: 3

Lighting and Ventilation- Importance, Types, Selection and Arrangement of lighting. Lighting for different areas – local, specific and decorative. Importance and types of ventilation.

UNIT: 4

Product design - design thinking process, diffusion and innovation, design communication, ergonomic considerations. Ergonomics - significance, scope, anthropometry, man, machine, environment relationship, factors affecting physiological cost of work, body mechanics, functional design of work place, time and motion study, energy studies.

UNIT: 5

Furniture and furnishing - Selection and principles of furniture arrangement. Arrangement of Furniture in different Rooms – Drawing/ Living room, Bedroom, and Kitchen. Multipurpose furniture arrangement. Home Furnishing - Curtains. Types and selection, Floor covering – rugs and carpets Types, selection & care.

Text Books:

1. Unit I-V: *Interior Design and Decoration* by Sherrill Whiton & Stanley Abercrombie, 5th Edition (Revised) 2002, Pearson Education.

2. Unit I-V: *Time Saver Standards for Interior Design and Space Planning* by Joseph De Chiara, Julius Panero, Martin Zelnik, 2nd Edition 2001, McGraw-Hill Education.

Reference Books:

1. **Unit 1:** Art and Design Fundamentals by Steven Bleicher, 1st Edition, 2017, Oxford University Press.
2. **Unit 2:** Housing and Interior Design by Evelyn L. Lewis and Carolyn S. Turner, 12th Edition, 2023, Goodheart-Willcox Publisher.
3. **Unit 3:** Interior Lighting for Designers by Gary Gordon, 5th Edition, 2022, Wiley.
4. **Unit 4:** Design for Ergonomics by Francesca Tosi, 1st Edition, 2020, Springer
5. **Unit 5:** The Furniture Handbook: A Guide to Choosing, Arranging, and Caring for the Furniture in Every Room of Your Home by Emily Henderson, 1st Edition, 2023, Clarkson Potter.

**Elective Theory-V
(Self-Study)
24PFT206: WEARABLE TEXTILE**

Contact Hours/Week: 5
Internal Mark : 25

Credit: 4
External Mark: 75

Course Outcomes:

UNIT	CO.NO.	UPON COMPLETION OF THIS COURSE THE STUDENTS WILL BE ABLE TO	COGNITIVE LEVEL
Unit I	CO - 1	Understand the fundamental principles and classifications of wearable textiles.	K1 – K4
Unit II	CO - 2	Identify and evaluate smart materials and electronic components integrated into textiles.	K1 – K5
Unit III	CO - 3	Design and prototype basic wearable textile systems.	K1 – K5
Unit IV	CO - 4	Analyze real-world applications across various industries.	K1 – K5
Unit V	CO - 5	Explore innovation, sustainability, and commercialization in wearable technology.	K1 – K6

K1- Remember K2- Understand K3- Apply K4- Analysis K5- Evaluation K6-Create

SYLLABUS

Unit 1: Introduction to Wearable Textiles

Definition, scope, and evolution of wearable textiles-Smart textiles vs. e-textiles: Concepts and classifications-Role of sensors, actuators, and microelectronics in wearables-Ethical considerations and human-centered design in smart textiles

Unit 2: Materials and Components

Smart fibers and conductive textiles (metallic, polymer-based, carbon-based)-Flexible electronics, printed circuits, and integration methods-Textile-integrated sensors (temperature, pressure, motion, biometric)-Role of nanotechnology, phase-change materials, and shape-memory textiles

Unit 3: Design, Development, and Manufacturing

Prototyping techniques: Embroidery, knitting, weaving, printing circuits-Challenges in durability, washability, comfort, and power management-Integration of AI, IoT, and machine learning in wearable textiles-Case studies: Fashion, sports, medical, and military applications

Unit 4: Applications of Wearable Textiles

Healthcare and medical wearables: Biosensors, remote monitoring, rehabilitation textiles-Sports and fitness: Smart fabrics for performance tracking-Military and defense: Protective gear, exoskeletons, camouflage textiles-Fashion and interactive clothing: LED garments, colour-changing fabrics

Unit 5: Future Trends & Market Insights

Emerging trends in smart wearables, sustainable textiles, and energy-harvesting fabrics-Industry standards, regulations, and safety considerations-Business, commercialization, and start-up opportunities in wearable textiles-Research advancements and future developments in smart textiles

Text Books:

1. **UNIT I-V:** "Electronic Textiles: Smart Fabrics and Wearable Technology" by *Tilak Dias* Woodhead Publishing (2020)
2. **UNIT I-V:** "Smart Textiles for In Situ Monitoring of Composites" edited by *Gennaro Marino* Woodhead Publishing (2019)

Reference Books:

1. **UNIT I & II: "Smart Textiles: Fundamentals, Design, and Interaction"** – Li, Y. (2020), 2nd Ed., Springer.
2. **UNIT III: "Electronic Textiles: Smart Fabrics and Wearable Technology"** – McCann, J. & Bryson, D. (2021), Woodhead Publishing.
3. **UNIT IV: "Advanced Textiles for Health and Well-being"** – Bartels, V.T. (2016), 1st Ed., Woodhead Publishing.
4. **UNIT V: "Wearable Electronics and Photonics"** – Tao, X. (Ed.) (2018), CRC Press.

Elective Theory-V (Self-Study) 24PFT209: SUSTAINABILITY IN SMART TEXTILES			
Contact Hours/Week: 5			Credit: 4
Internal Mark : 25			External Mark: 75

Course Outcomes:

Unit	CO No.	Upon Completion of this Course, the Students Will Be Able To	Cognitive Level
Unit I	CO-1	Describe the evolution and principles of fashion painting and printing.	K1–K3
Unit II	CO-2	Demonstrate traditional and hand-painted textile techniques.	K2–K4
Unit III	CO-3	Apply manual and machine-based printing methods in design creation.	K2–K5
Unit IV	CO-4	Assess sustainable innovations and digital printing techniques.	K3–K5
Unit V	CO-5	Evaluate smart textile applications and predict future fashion trends.	K3–K5

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

Unit I: Introduction to Smart Textiles and Sustainability

Definition, types, and scope of smart textiles; role of sustainability; impacts of textile waste; circular economy & recycling; global standards (OEKO-TEX, GOTS, Cradle-to-Cradle).

Unit II: Sustainable Materials for Smart Textiles

Eco-friendly fibers - organic cotton, bamboo, hemp, algae-based; biodegradable/recycled polymers; sustainable conductive and nanomaterials; bio-based coloration techniques.

Unit III: Sustainable Manufacturing Techniques

Low-impact dyeing/finishing; energy-efficient methods (3D printing, laser cutting); waste reduction; waterless/chemical-free processes; AI and automation in production.

Unit IV: Smart Textile Innovations for Sustainability

Self-cleaning/pollution-resistant textiles; energy-harvesting wearables; biodegradable smart textiles; sensors for environmental monitoring; biotech applications in textiles.

Unit V: Future Trends and Industry Perspectives

Sustainable business models; consumer trends; green policies and regulations; case studies on eco-smart brands; challenges and research directions.

Text Books:

1. **Unit I- V: Smart Textiles for Designers: Inventing the Future of Fabrics** by Rebecca Pailes-Friedman– 1st Edition, 2016, Laurence King Publishing

Reference Books:

1. **Unit I:** *Sustainable Fashion: What's Next? A Conversation About Issues, Practices, and Possibilities* by Janet Hethorn and Connie Ulasewicz – 2nd Edition, 2015, Fairchild Books
2. **Unit I:** *Fashion & Sustainability: Design for Change* by Kate Fletcher and Lynda Grose – 2012, Laurence King Publishing
3. **Unit II:** *Textiles and the Environment* by Mohsen Miraftab and Saiful Islam – 2013, Woodhead Publishing
4. **Unit II:** *Sustainability in Fashion and Textiles: Values, Design, Production and Consumption* by Miguel Angel Gardetti and Ana Laura Torres – 2013, Greenleaf Publishing
5. **Unit III:** *Wearable Technology in Medicine and Health Care* by Raymond Tong – 1st Edition, 2018, Academic Press
6. **Unit IV:** *High-Performance Apparel: Materials, Development, and Applications* by John McLoughlin and Tasneem Sabir – 2017, Woodhead Publishing
7. **Unit V:** *Electronic Textiles: Smart Fabrics and Wearable Technology* by Tilak Dias – 1st Edition, 2015, Woodhead Publishing

Elective Theory-V (Self-Study) 24PFT212: LUXURY BRAND MANAGEMENT			
Contact Hours/Week: 5			Credit: 4
Internal Mark : 25			External Mark: 75

Course Outcomes:

Unit	CO No.	Upon Completion of this Course, the Students Will Be Able To	Cognitive Level
Unit I	CO - 1	Explain the historical evolution and characteristics of luxury brands.	K1 – K5
Unit II	CO - 2	Analyze luxury consumer behavior and market dynamics.	K1 – K5
Unit III	CO - 3	Develop strategic marketing plans tailored to luxury brands.	K1 – K5
Unit IV	CO - 4	Design innovative retail and customer experience models for luxury.	K1 – K5
Unit V	CO - 5	Evaluate the impact of sustainability, technology, and global trends on the future of luxury branding.	K1 – K6

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

Unit 1: Foundations of Luxury Branding

Definition and history of luxury brands-Characteristics and evolution of the luxury market- Principles of luxury branding: identity, heritage, exclusivity-Sociology of luxury: connection to time, money, fashion, and art-Globalization and cultural convergence in luxury

Unit 2: Luxury Consumer Behavior and Market Analysis

Luxury consumer psychology and segmentation-Buying motivations and consumer decision-making in luxury markets-Emerging markets and global luxury consumption trends-Role of technology and digital transformation in luxury retail-Influence of social and cultural factors on luxury consumption

Unit 3: Strategic Brand and Marketing Management

Brand storytelling and identity development-Anti-laws of luxury marketing and differentiation strategies-Digital marketing, social media, and omnichannel strategies-CRM (Customer Relationship Management) in luxury brands-Case studies: Successful luxury marketing campaigns

Unit 4: Retail Management and Customer Experience

Evolution of luxury retail: concept stores, pop-up stores, and flagship stores-Customer experience in luxury retail environments-Design thinking and innovation in retail strategies-Role of exclusivity and personalization in luxury retailing-Future trends in luxury distribution and e-commerce

Unit 5: Sustainability, Innovation, and Future of Luxury

Ethical considerations and sustainability in luxury brand management-Circular economy and sustainable luxury initiatives-Innovation in product development and digital luxury experiences-Impact of artificial intelligence and big data on luxury markets-Future directions and challenges for luxury brands.

Text Books:

1. **UNIT I-V: The Road to Luxury: The Evolution, Markets, and Strategies of Luxury Brand Management"** by *Ashok Som and Christian Blanckaert (2018)*
2. **UNIT I-V: Luxury World: The Past, Present and Future of Luxury Brands"** by *Mark Tungate (2017)*

Reference Books

1. **UNIT I: Kapferer, J.-N. & Bastien, V. (2018).** *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* (2nd ed.). Kogan Page.
2. **UNIT II: Chevalier, M. & Mazzalovo, G. (2017).** *Luxury Brand Management: A World of Privilege* (2nd ed.). Wiley.
3. **UNIT III: Okonkwo, U. (2020).** *Luxury Fashion Branding: Trends, Tactics, Techniques*. Palgrave Macmillan.
4. **UNIT IV: Danziger, P. N. (2015).** *Let Them Eat Cake: Marketing Luxury to the Masses—as well as the Classes*. Kaplan Publishing.
5. **UNIT V: Fionda, A. M. & Moore, C. M. (2019).** *The Anatomy of the Luxury Fashion Brand. Journal of Brand Management*, 16(5-6), 347–363.

Elective -VI			
(Theory & Laboratory)			
24PFT215: COSTUME RECYCLING			
Contact Hours/Week	:4	Credit:4	
Theory Internal Mark	:15	Theory External Mark	:45
Laboratory Internal Mark	:10	Laboratory External Mark	:30

Course Outcomes:

Unit	CO No.	Upon Completion of this Course, the Students Will Be Able To	Cognitive Level
Unit I	CO-1	Explain the concept of sustainability in fashion	K1 – K5
Unit II	CO-2	Identify and apply various techniques in costume recycling.	K1 – K5
Unit III	CO-3	Analyze ethical considerations and evaluate commercial opportunities in recycled costume businesses.	K1 – K5
Unit IV	CO-4	Develop practical skills to reconstruct and upcycle garments creatively using discarded materials.	K1 – K6
Unit V	CO-5	Plan, design, and present a mini-collection of upcycled costumes for a sustainable fashion showcase.	K1 – K6

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

Unit I: Introduction to Costume Recycling (Theory)

Concept of sustainability in fashion, History and evolution of costume recycling, Impact of fast fashion and textile waste on the environment, Circular economy in fashion, Overview of global initiatives for sustainable fashion.

Unit II: Techniques in Costume Recycling (Theory)

Methods of deconstruction and upcycling, Textile waste management strategies, Fabric repurposing and redesign techniques, Zero-waste pattern-making principles, Role of technology in sustainable fashion production

Unit III: Ethical & Commercial Aspects of Recycled Costumes (Theory)

Ethical considerations in recycled fashion, Market demand for sustainable and upcycled fashion, Business models for recycled costume brands, Case studies on successful upcycled fashion brands, Government policies and certifications in sustainable fashion

Unit IV: Garment Deconstruction & Fabric Repurposing (Laboratory)

- Tote Bag from Old T-Shirts
- Pillow Covers from Denim Jeans
- Accessory Creation from Fabric Scraps
- Patchwork Garments

Unit V: Garment Preparation from Recycled Materials (Laboratory)

- Collect recycled fabrics from old garments.
- Design and construct a garment using the prepared recycled fabric.

Text books:

1. **Unit I-V** *Sustainable Fashion and Textiles: Design Journeys* by Fletcher, Kate. 2nd Edition, Routledge, 2014.
2. **Unit I-V** *ReFashioned: Cutting-Edge Clothing from Upcycled Materials* by Brown, Sass. 1st Edition, Laurence King Publishing, 2013.

Reference books:

1. **Unit I:** *Fashion and Sustainability: Design for Change* by Kate Fletcher & Lynda Grose - 1st Edition, 2012, Laurence King Publishing
2. **Unit II:** *The Upcycle: Beyond Sustainability - Designing for Abundance* by William McDonough & Michael Braungart - 1st Edition, 2013, North Point Press
3. **Unit III:** *Sustainable Fashion: Why Now? A Conversation about Issues, Practices, and Possibilities* by Janet Hethorn & Corinne G. Smith - 1st Edition, 2015, Fairchild Books
4. **Unit IV:** *Mending and Repairing Clothes* by Katrina Rodabaugh - 1st Edition, 2017, Abrams
5. **Unit V:** *Fashion as Design* by Jessica Glasner (Editor) - 1st Edition, 2019, Museum of Modern Art

Elective -VI			
(Theory & Laboratory)			
24PFT218: FABRIC MANIPULATION AND DYEING			
Contact Hours/Week	:4	Credit:4	
Theory Internal Mark	:15	Theory External Mark	:45
Laboratory Internal Mark	:10	Laboratory External Mark	:30

Course Outcomes:

Unit	CO No.	Upon Completion of this Course, the Students Will Be Able To	Cognitive Level
Unit 1	CO – 1	Understand fiber types, fabric structures, and their properties for design applications.	K1– K6
Unit 2	CO – 2	Apply various fabric manipulation techniques to create surface textures and forms.	K1– K6
Unit 3	CO – 3	Understand dye types, color theory, and their role in textile design.	K1– K6
Unit 4	CO – 4	Experiment with advanced manipulation and embellishment to create textile prototypes.	K1– K6
Unit 5	CO – 5	Execute creative dyeing techniques and develop a personalized textile collection.	K1– K6

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

Unit I: Textile Science and Fabric Structure (Theory)

- Introduction to Textile Fibers: Natural, Synthetic, and Blended Fibers
- Fabric Construction Techniques: Woven, Knitted, and Non-Woven
- Understanding Fabric Properties: Strength, Drape, Texture, Absorbency
- Relationship Between Fiber, Yarn, and Fabric for Manipulation

Unit II: Principles of Fabric Manipulation (Theory)

- Historical and Contemporary Applications of Fabric Manipulation
- Techniques: Pleating, Smocking, Ruching, Shirring, Ruffling, and Tucking
- Fabric Distortion Methods: Heat Setting, Bonding, and Molding
- 3D Textural Effects in Fashion and Interiors

Unit III: Fundamentals of Dyeing and Color Theory (Theory)

- Understanding the Science of Dyes and Pigments
- Types of Dyes: Natural, Synthetic, Reactive, Acid, Disperse, and Vat Dyes
- Factors Affecting Dye Absorption and Fastness
- Color Mixing, Color Psychology, and Trend Forecasting in Textile Design

Unit IV: Experimental Fabric Manipulation (Laboratory)

- Hands-on Workshop on Advanced Fabric Manipulation Techniques
- Combination of Manipulation with Surface Embellishment (Embroidery, Appliqué)
- Creating Prototypes for Fashion, Interior, and Art Installations

Unit V: Advanced Dyeing Techniques and Applications (Laboratory)

- Hands-on Training in Tie & Dye, Batik, and Ombre Dyeing
- Experimental Dyeing with Eco-Friendly and Natural Dyes
- Development of a Personal Textile Collection with Manipulation and Dyeing

Text Books:

1. **UNIT I-III:** J.J. Pizzuto's Fabric Science by *Ajoy K. Sarkar, Ingrid Johnson, Allen C. Cohen*, 12th Edition, 2023, Bloomsbury Publishing.
2. **UNIT IV-V:** Emerging Technologies for Textile Coloration by *Mohd Yusuf, Mohammad Shahid*, 1st Edition, 2022, CRC Press.

Reference Books:

1. **UNIT I:** Textiles by *Sara J. Kadolph*, 11th Edition, 2015, Pearson Education.

2. **UNIT II:** Fabric Manipulation by *Ruth Singer*, 1st Edition, 2018, David & Charles.
3. **UNIT III:** Textile Dyeing by *Dr. N. N. Mahapatra*, 1st Edition, 2017, Woodhead Publishing India.
4. **UNIT IV:** Surface Design for Fabric by *Richard M. Proctor & Jennifer F. Lew*, Revised, 2002, University of Washington Press.
5. **UNIT V:** Tie Dye: Dye It, Wear It, Share It by *Shabd Simon-Alexander*, 1st Edition, 2013, Clarkson Potter.

Elective -VI (Theory & Laboratory) ADVANCED COSMETOLOGY: 24PFT221			
Contact Hours/Week	:4	Credit:4	
Theory Internal Mark	:15	Theory External Mark	:45
Laboratory Internal Mark	:10	Laboratory External Mark	:30

Course Outcomes:

Unit	CO No.	Upon Completion of This Course, the Students Will Be Able To	Cognitive Level
Unit 1	CO – 1	Understand the structure, types, and characteristics of skin and hair, and identify common disorders.	K1–K6
Unit 2	CO – 2	Apply cosmetic ingredients and nutrition principles to improve skin and hair health.	K1–K6
Unit 3	CO – 3	Demonstrate advanced facial and hair treatments using appropriate salon technologies and equipment.	K1–K6
Unit 4	CO – 4	Execute advanced makeup techniques, including bridal makeup and skin treatments for different skin types.	K1–K6
Unit 5	CO – 5	Develop and perform specialized hair treatments, including styling, advanced cuts, and dye applications.	K1–K6

K1- Remember **K2-** Understand **K3-** Apply **K4-** Analysis **K5-** Evaluation **K6-**Create

SYLLABUS

UNIT – I: Skin and Hair Structure (Theory)

Definition- identifying different types and textures of hair and skin-Common Skin and Hair Disorders. effective treatments for hair and skin disorders. Preventive measures and care routines for maintaining healthy hair and skin

UNIT – II: Cosmetic Chemistry (Theory)

Basics of skincare and haircare ingredients and their effects. Role of Nutrition- importance of diet- effects of skin and hair health. Hygiene Practices-Importance of cleanliness in treatments and equipment.

UNIT – III: Advanced Treatments and Technologies (Theory)

Types of Treatments- Facial Treatments-chemical peels and microdermabrasion. Hair Treatments- keratin, coloring, and restoration. Uses of salon equipment like steamers and high-frequency machines.

Unit-VI (Practical)

Face Make up and Treatments

- Bleaching for normal skin
- Facial –Normal skin
- Advanced Make up
- Advanced Bridal Make up

Unit –V (Practical)

Hair Styles and Treatments

- Advanced Hair styles (any 5)
- Special Hair styles (any 2)
- Advanced hair cuts
- Dandruff treatment
- Dye application for hair

Text books:

1. **Unit I-V "Milady's Standard Cosmetology"** by **Milady**, 13th Edition, 2016.

Reference books:

1. **Unit I-V:** *Milady's Standard Cosmetology* by **Milady** - 13th Edition, 2016, Cengage Learning
2. **Unit II:** *Cosmetic Dermatology: Principles and Practice* by **Zoe Diana Draelos** - 3rd Edition, 2018, Wiley-Blackwell
3. **Unit III:** *The Chemistry of Cosmetics and Toiletries* by **Nina M. G. F. Wesseling** - 1st Edition, 2012, Elsevier Science
4. **Unit IV:** *The Science of Beauty Therapy* by **Francesc R. Giner** - 1st Edition, 2007, Routledge