

## M.Sc. FASHION TECHNOLOGY

SEM	Course Code	Course	Course Title	Ins. Hrs / Week	Credit	Exam Hrs	Marks		Total
							CIA	ESE	
<b>I</b>	20PFT1CC1	Core – I	Advanced Textile Production	6	5	3	25	75	100
	20PFT1CC2	Core – II	Quality Standards and Specification	6	5	3	25	75	100
	20PFT1CC3P	Core – III	Fashion Illustration and Embellishment - Practical	6	4	3	25	75	100
	20PFT1CC4P	Core – IV	Fashion Draping and Construction - Practical	6	4	3	25	75	100
	20PFT1DE1	DSE – I #		6	4	3	25	75	100
	<b>TOTAL</b>				<b>30</b>	<b>22</b>			
<b>II</b>	20PFT2CC5	Core – V	Research Methods and Statistics	6	5	3	25	75	100
	20PFT2CC6	Core – VI	Technical Textile	6	5	3	25	75	100
	20PFT2CC7P	Core – VII	Computer Aided Designing - Practical - I	6	4	3	25	75	100
	20PFT2CC8P	Core – VIII	Design with Prints – Practical	6	4	3	25	75	100
	20PFT2DE2	DSE – II #		6	4	3	25	75	100
	<b>TOTAL</b>				<b>30</b>	<b>22</b>			
<b>III</b>	20PFT3CC9	Core – IX	Textile Testing	6	5	3	25	75	100
	20PFT3CC10P	Core – X	Textile Testing - Practical	6	5	3	25	75	100
	20PFT3CC11P	Core – XI	Home Textiles – Practical	6	4	3	25	75	100
	20PFT3CC12P	Core – XII	Computer Aided Pattern Making and Grading - Practical – II	6	4	3	25	75	100
	20PFT3DE3	DSE – III #		6	4	3	25	75	100
	20PFT3EC1	Extra Credit Course – I	Online Course (MOOC)	-	1*	-	-	-	-
	<b>TOTAL</b>				<b>30</b>	<b>22</b>			
<b>IV</b>	20PFT4CC13	Core – XIII	Advanced Wet Processing	6	5	3	25	75	100
	20PFT4CC14	Core – XIV	Export Documentation	6	5	3	25	75	100
	20PFT4CC15P	Core – XV	Fashion Portfolio Presentation – Practical	6	5	3	25	75	100
	20PFT4PW	Project	Project	12	8	-	-	200	200
	20PCNOC	Online Course		-	1	-	-	-	-
	20PFT4EC2	Extra Credit Course - II	Fashion Technology for Career Examinations	-	5*	3	-	100	100*
<b>TOTAL</b>				<b>30</b>	<b>24</b>				<b>500</b>
<b>GRAND TOTAL</b>						<b>90</b>			<b>2000</b>

\*Not considered for grand total and CGPA

# Discipline Specific Elective

SEMESTER	COURSE CODE	DISCIPLINE SPECIFIC ELECTIVE
I	20PFT1CE1A	Fashion Marketing and Retailing
	20PFT1CE1B	Computer Application in Fashion Designing
II	20PFT2CE2A	Entrepreneurial Development
	20PFT2CE2B	Home Textiles
III	20PFT3CE3A	Home Science
	20PFT3CE3B	Digital Marketing

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
I	20PFT1CC1	Core – I	ADVANCED TEXTILE PRODUCTION	6	5	100	25	75

**Course Outcomes :**

1. Acquire the recent developments in the field of textiles
2. Apply knowledge in yarn manufacturing process.
3. Categorize the techniques of weaving and woven fabrics.
4. Construct knowledge in knitting
5. Interpret the nonwoven and its manufacturing process

**UNIT-I: Fibers –Recent development**

**18 hours**

Fibers-Introduction, Natural polymer-chitin and chitosan, alginate, manufacturing process-Sustainable fibers- introduction, properties and uses lotus, hemp, stinging nettle, coffee ground, pine and banana fiber .Conventional fibers- carbon, glass, and optical fibers -Structure and end uses

**UNIT-II: Yarn manufacturing process**

**18 hours**

Yarn Spinning System –Staple fibers-Ring Spinning, Rotar Spinning, Friction Spinning, self twist spinning, Electrostatic, and Airjet-Filament-wet, dry and melt spinning, Bicomponent and film splitting reaction spinning.-Integrated Multicomponent yarn-Integrated Composite spinning , cover spinning, Selfil yarn spinning and Acro dynamic spinning.Electro spinning-nano fabrication and its application

**UNIT- III: Fabric Manufacturing-Weaving**

**18 hours**

Weaving- Introduction , Advantages and Disadvantages of shuttle and shuttle less looms-projectile looms, rapier looms,fluid jet and Multiphase looms. Handloom, 3D woven fabric - Classification and woven filters.

**UNIT-IV: Knitting**

**18 hours**

Knitting-introduction,Fabric geometry general terms – stitch density –,patterning in weft and warp knitting – pattern needles and chain links – tension control – relation between loop length and construction –fabric relaxation and shrinkage. Elastometric yarn knitting and pile knitting Flat knitting machine-v bed, 3D knits.

**UNIT-V: Non wovens**

**18 hours**

Nonwovens- basic manufacturing process-staple fibre web formation process, web bonding process-mechanical, thermal, chemical, polymer extrusion based technology-Needle punched process, Finishing process of Nonwovens-mechanical and Chemical #Properties and Uses of Nonwovens.

#.....# **Self-Study Portion**

**TEXT BOOK :**

**Study Material Prepared By Department.**

**Unit I Chapter I & II**

**Unit II** Chapter I & II Chapter II& III

**Unit III** Chapter V & X

**Unit IV** Chapter III & IV

**Unit v** Chapter II

**Books for Reference:**

1. Stephen J Eichhorn, 2009, Handbook of Textile Fibre Structure , Woodhead Publishing, new jersey
2. Dong Zhang, 2014, Advances in Filament Yarn Spinning of Textiles and Polymers, Woodhead Publishing, new jersey.
3. Xiaogang Chen, 2015, Advances in 3D Textiles, Woodhead Publishing, Amsterdam
4. Russel, S. J., 2007, Handbook of nonwovens, Woodhead Publishing Ltd., UK,
5. D.B Ajgaonkar 1998 Knitting Technology, Woodhead Publishing Limited,
6. K. F. Au 2011 Advances in Knitting Technology Woodhead Publishing UK
7. Peters, R. H., Textile Chemistry, Elsevier Scientific Publishing Company, New York, 1975.
8. Hall, A. J, Textile Finishing, Haywood Books, London, 1996

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits		
I	20FT1CC1	ADVANCED TEXTILE PRODUCTION					6	5		
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓		✓	✓	✓		✓	✓	✓	
CO2		✓			✓	✓	✓	✓	✓	
CO3	✓	✓		✓	✓			✓	✓	✓
CO4	✓	✓		✓	✓		✓		✓	
CO5	✓	✓		✓	✓	✓		✓		✓
NUMBER OF MATCHES= 36, RELATIONSHIP : High										

Prepared by :

1. V.C.Archana

checked by:

1. Dr. M. Aneez Mohamed

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
I	20PFT1CC2	Core - II	QUALITY STANDARDS AND SPECIFICATIONS	6	5	100	25	75

**Course Outcomes :**

1. Identify the quality standards and importance of quality control in textile industry
2. Indicate quality parameters in textiles
3. Propose the quality factors in apparel and textiles
4. Appraise quality control programs and techniques
5. Estimate quality control in labeling

**UNIT-I: INTRODUCTION TO QUALITY STANDARDS**

**18 hours**

# Introduction to quality standards - Importance - Benefits - Levels and sources of quality standards #. British standards and ISO standards, ISO 9000, ISO 1400, ASTM, BIS, AATCC Standards. ISO Standards for fiber, yarn, fabric, apparel, sewing and knitting machines. Okeo Tex Standard 100.

**UNIT-II: QUALITY INSPECTIO**

**18 hours**

Raw material inspection, In-process inspection – Quality followed in cutting department-Sewing department- Finishing and packing department – Textile Product Evaluation, # Atmospheric conditions for Testing #, Fabric Stretch Properties, dimensional changes in fabric due to laundering - dry cleaning and pressing , seam strength in woven and knitted fabrics.

**UNIT-III: QUALITY FACTORS IN APPAREL**

**18 hours**

Sensitizing dye stuff, Allergic dyes, Carcinogenic amines, Red listed chemicals as per eco specifications. Eco-management of textile and apparel - Global scenario -Eco mark & environment friendly textiles. Apparel defects- Raw materials to packing, Quality Costs and Customer returns.

**UNIT-IV: QUALITY CONTROL PROGRAMME AND TECHNIQUES**

**18 hours**

Starting a quality control program - Implementation of quality system in production line - Product specification and analysis using analytical tools - Quality management through inspection - Testing and sewing quality tools, 4-point and 10- point system – Quality concept and costs; quality assurance; statistical quality control, acceptance sampling, zero defects, six sigma, Quality Cycle.

**UNIT-V: LABELING IN APPAREL**

**18 hours**

Introduction to Care Label-Importance of care label- Labeling Systems- American, British, Canadian, and International labeling -shade sorting - factors responsible for shade variation. ECO labeling and marking.

**#.....# Self Study Portion**

**TEXT BOOKS:**

**T.B – 1** Mehta.P.V and Bhardwaj.S.K, Managing Quality in the Apparel Industry, New age international Ltd Publishers, 1998.

**T.B – 2** Kadolph.S.J, Quality assurance for textiles and apparel, 2<sup>nd</sup> edition, Fair child Publications, Inc, New York, 2008.

**T.B-3** Souza.N.D, Fabric Care, New age International (P) Ltd, Publishers, Chennai.

**Books for References:**

1. Pradip V. Mehta J.S.N. An introduction to quality control for the apparel industry International, 1985
  2. Mehta.P.V and Bhardwaj.S.K, Managing Quality in the Apparel Industry, New age international Ltd Publishers, 1998.
  3. Glock Ruth E., Glock Apparel Manufacturing: Sewn Product Analysis, 4/E
  4. J.E.Booth, Newness Butterworth, London - Principles of Textile Testing
  5. Billie J. Collier and Helen E. Epps, Prentice Hall, New Jersey- Textile Testing and Analysis
  6. John H. Skinkle, Brooklyn, New York - Textile Testing
  7. Groover and Hamby-Handbook of Textile Testing and Quality Control
- Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits			
I	20PFT1CC2	QUALITY STANDARDS AND SPECIFICATIONS					6	5			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓		✓			✓	✓	✓		✓	
CO2		✓	✓		✓	✓	✓	✓			
CO3	✓		✓	✓		✓	✓	✓	✓	✓	
CO4		✓	✓		✓	✓	✓	✓			
CO5	✓			✓		✓		✓	✓	✓	
Number of Matches= 32, Relationship : Moderate											

Prepared by :  
1. K. Sudha

checked by:  
1. Dr. M. Aneez Mohamed

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
I	20PFT1CC3P	Core – III	FASHION ILLUSTRATION AND EMBELLISHMENT – PRACTICAL	6	4	100	25	75

### Course Outcome:

1. Acquire fashion figures using Head theory.
2. Draw the different states, countries and seasons.
3. Design the sketch for different wears.
4. Illustrate the sketch for different occasions.
5. Design a garment for Embellishment work.

### UNIT 1: PREPARE SKETCHES FOR THE FOLLOWING

1. Lay figure - 7½ Head Theory. **3 hours**
2. Fashion Figure - 8 Head Theory. **3 hours**
3. Sketch the costumes of Fashion figure – 10 Head Theory. **4 hours**

### UNIT 2: SKETCHING THE FOLLOWING

1. Sketching of Different States **10 hours**
2. Sketching of Different Countries **10 hours**
3. Sketching for Different Seasons **10 hours**

### UNIT 3 : ILLUSTRATE THE FOLLOWING TYPES OF WEAR'S FOR UNISEX

1. Casual Wear **4 hours**
2. Night Wear **4 hours**
3. Executive Wear **4 hours**
4. Ramp Wear **4 hours**

### UNIT 4 : ILLUSTRATE THE FOLLOWING OCCASSIONAL WEAR'S FOR UNISEX

1. Cocktail Wear **4 hours**
2. Party Wear **4 hours**
3. Traditional Wear **4 hours**
4. Sports Wear **4 hours**

**UNIT 5 : ILLUSTRATE THE FOLLOWING TREND WEAR'S FOR UNISEX**

- 5. Current Trend With Pantone Backdrop **6 hours**
- 6. Rendering Techniques **6 hours**
- 7. Surface Embellishment ( Wealth Out of Waste) **6 hours**

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits			
I	20PFT1CC3P	FASHION ILLUSTRATION AND EMELLISHMENT – PRACTICAL					6	4			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓		✓	✓	✓		✓		✓	
CO2	✓	✓		✓					✓		
CO3	✓		✓			✓		✓		✓	
CO4	✓	✓			✓	✓	✓	✓			
CO5	✓	✓	✓	✓		✓	✓	✓	✓		
Number of Matches= 30, Relationship : Moderate											

Prepared by :

1. K.R.Thenmozhi

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1. Dr. M. Aneez Mohamed

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
I	20PFT1CC4P	Core – IV	FASHION DRAPING AND CONSTRUCTION – PRACTICAL	6	4	100	25	75

### Course Outcomes:

1. Create design and idea for draping.
2. Understand and identify the basic draping
3. Design and develop the individual parts of the garment in draping
4. Apply the types of garments in draping. (Party wear, princess wear).
5. Interpret the Different techniques for draping.

### UNIT-I FASHION DRAPING

**15 hours**

1. Introduction to Draping
2. Illustrate and drape the Blocks

### UNIT-II BASIC DRAPING

**15 hours**

3. Basic Bodice for Men and Women
4. Waist Line Variation – Natural / Drop / Empire

### UNIT-III DESIGN DEVELOPMENT

**16 hours**

5. Party Wear – Yoke / Princess
6. Drape the Historical wear with accessories

### UNIT-IV PRINCIPLES OF DESIGN

**16 hours**

7. Drape the Balance, Rhythm, Harmony
8. Drape the Design for-Emphasis, Proportion



- 9. Fullness – Pleats, Darts, Tucks, Gathers, Ruffles
- 10. Haute couture Designs- Frocks

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits				
I	20PFT1CC4P	FASHION DRAPING AND CONSTRUCTION – PRACTICAL					6	4				
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	✓		✓			✓	✓	✓		✓		
CO2	✓	✓	✓	✓	✓	✓			✓			
CO3				✓		✓	✓	✓	✓			
CO4		✓			✓		✓		✓	✓		
CO5	✓	✓	✓	✓	✓	✓		✓		✓		
Number of Matches= 31, Relationship : Moderate												

Prepared by :

1. B.Jabeen

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Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
I	20PFT1DE1A	DSE – I	FASHION MARKETING AND RETAILING	6	4	100	25	75

## COURSE OUTCOME

1. Identify the marketing techniques
2. Analyze and develop the Marketing segments
3. Understand fashion Retailing
4. Apply the Business Ethics
5. Systemize the Merchandise

### UNIT-I: MARKETING

**18 hours**

Marketing – Definition, # types and functions #, concept – system – environment –tasks – mix, market survey and research.

### UNIT-II: MARKET PLANNING AND DEVELOPMENT

**18 hours**

Product planning and development product innovation – organization for product innovation – new product, planning process – manufacturer’s criteria for new product – timing of new product – product life cycle – product mix – failure of new product – product line policies and strategies – # factors influencing changes in product mix # – strategic planning process.

### UNIT-III: FASHION RETAILING

**18 hours**

Classification of on-site Retailers – multi – channel Fashion Retailing – The Global Scene – Trends in On-Site Fashion Retailing – Small Store Applications. Organizational Structures: The need for Organizational Structures – Fashion Retailing Organization Charts – Trends in Organizational Structures.

### UNIT-VI: SOCIAL RESPONSIBILITY AND ENVIRONMENTS

**18 hours**

Social Responsibility: Business Ethics – Social Responsibility – Trends in Ethics and Social Responsibility. Environments: Choosing the Location - Classification of Shopping Districts - Site Selection – Occupancy Considerations – Trends in Store Locations.

### UNIT-V: MERCHANDISING FASHION PRODUCTS

**18 hours**

Planning and Executing the purchase – Fashion Buyers Duties and Responsibilities – Trends in Purchase Planning - Purchasing in the Domestic and Off-Shore Markets - The Domestic Market Place – Off-Shore Fashion Markets – Pricing Considerations.

#.....# **Self Study Portion**

**TEXT BOOK:**

**T.B-1** Apparel Marketing - Study Material prepared by the Department.

<b>UNIT- I</b>	Chapter I	<b>T.B-1</b>
<b>UNIT-II</b>	Chapter II	<b>T.B-1</b>
<b>UNIT-III</b>	Chapter III	<b>T.B-1</b>
<b>UNIT-IV</b>	Chapter IV	<b>T.B-1</b>
<b>UNIT V</b>	Chapter V	<b>T.B-1</b>

**Books for References:**

- 1.Kotler, Keller Koshy., “Marketing Management”, Jha.Pearson Education”, 2009.
- 2.Elizabeth, Richards.A, David Rachman, “ Market Information and Research in Fashion Management”, Marketing Classics Press, 2011.
3. Diomond.E, Fashion Retailing, A Multi-Channel Approach, Second Edition, Dorling Kindersley Pvt Ltd., 2007.
- 4.Myron.M, Lebensburger, “ Selling Men's Apparel Through Advertising, McGraw-Hill book Company, 1939

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits			
I	20PFT1DE1A	FASHION MARKETING AND RETAILING					6	4			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓		✓		✓	✓			✓	
CO2	✓	✓			✓	✓		✓	✓	✓	
CO3			✓	✓	✓	✓	✓	✓		✓	
CO4	✓	✓		✓		✓		✓	✓		
CO5	✓	✓	✓	✓	✓		✓		✓		
Number of Matches= 33, Relationship : Moderate											

Prepared by :

1. B.Jabeen

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1. Dr. M. Aneez Mohamed

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
I	20PFT1DE1B	DSE – I	COMPUTER APPLICATION IN FASHION DESIGNING	6	4	100	25	75

### Course outcome

1. Interpret the essentials of CAD software in fashion industry.
2. Explain the practical knowledge with CAD theory.
3. Develop knowledge in selection of colour and selection of fabric related to current fashion trends.
4. Discover the opportunities and applications of CAD in textile industry.
5. Show the importance about presentations and graphics in fashion industry.

### UNIT-I: INTRODUCTION

**18 hours**

Introduction and definition for CAD, # Computer and Fashion Industry. Acceptance of New Technology #. Quick response Technology. CAD in today's Fashion Industry. Types of CAD Systems– Textile Design System, illustrations / Sketchpad System. Texture Mapping – Draping Software, Embroidery System, Specification and Costing System.

### UNIT-II: SILHOUETTE

**18 hours**

Silhouette- Introduction # understanding shape # fabric selection and Silhouette, proportion, line, focal point, cut, fit and construction, Coordinating Silhouette, Rendering Silhouette, Computer rendering of Silhouette

### UNIT-III: SOFTWARES IN TEXTILES AND APPAREL MACHINERY

**18 hours**

Digitizing and grading system, Marker-Making Systems, Pattern Design Software, Robotics in Garment manufacturing Technology. # Commercial Software Systems #. Knitting Machines, Embroidery Machines, Cutting, Spreading, Pattern Making Machine

### UNIT-IV: COLOUR AND FABRIC SELECTION

**18 hours**

Colour –Introduction, Colour systems, working with Colour, understanding the Colour wheel, Colour and apparel industry, communicating Colour, Colour and digital word, Colour for visualization vs. Colour for production, # Computer Colour Matching #. Fabric selection process, organizing the fabrics, designing textiles, printed fabrics using scanner, Computerized pattern generation.

### UNIT-V: PRESENTATION AND GRAPHICS

**18 hours**

Introduction, External Presentation, Internal Presentation, # Planning a Presentation – Organization and Composition #. Computer generated Presentation, Computer generated Catalogues, Presentation Board, Multimedia and 3 – D Presentation.

#.....# **Self Study Portion**

### TEXT BOOK:

**T.B-1** CAD for Fashion Design, by Rene Weiss Chase, Prentice Hall, Upper Saddle River, London.

<b>UNIT- I</b>	Chapter I& II	<b>T.B-1</b>
<b>UNIT- II</b>	Chapter VII	<b>T.B-1</b>
<b>UNIT- III</b>	Chapter II&III	<b>T.B-1</b>
<b>UNIT- IV</b>	Chapter V&VI	<b>T.B-1</b>
<b>UNIT- V</b>	Chapter VIII	<b>T.B-1</b>

**Books for References:**

- 1.Mikell P.Groover, Emory W.Zimmers, Jr. – “CAD / CAM Computer – Aided Design and Manufacturing” – 1983.
- 2.Alison Beazley and Terry Bond, “Computer – Aided Pattern Design and Product Development” – Blackwell Publishing, 2003.
- 3.Stacy Stewart Smith, “CAD for Fashion Design and Merchandising” – Fair Child Publications, 2013.
- 4.Laura Nugent, “Computerized Pattern Making for Apparel Production” – Fair Child Publications,2008

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits				
I	20PFT1DE1B	COMPUTER APPLICATION IN FASHION DESIGNING					6	4				
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1		✓	✓	✓		✓	✓	✓		✓		
CO2	✓	✓		✓	✓		✓	✓	✓	✓		
CO3	✓		✓	✓		✓			✓	✓		
CO4			✓	✓	✓	✓	✓		✓	✓		
CO5	✓				✓		✓	✓		✓		
Number of Matches= 33, Relationship : Moderate												

Prepared by :

1. V.C.Archana

checked by:

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Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20PFT2CC5	Core – 5	RESEARCH METHODS AND STATISTICS	6	5	100	25	75

### Course Outcomes:

1. Explain the fundamental principles and techniques of methodology concerning research.
2. Analyze the statistical procedure, numerical data and draw inferences.
3. Demonstrate the knowledge about sampling and scaling techniques for the research study.
4. Show the importance of measure of tendency, dispersion and correlation for the research study.
5. Knowledge about parametric and non-parametric signification in research study.

### UNIT-I: RESEARCH METHODOLOGY

**18 hours**

Meaning of Research, Objectives of Research, Types of Research, Research Process, and Criteria of Good Research. Defining the Research Problem, necessity of defining the problem, Technique involved in defining a problem. Research Design – Meaning and Needs, # Features of Good Design, Important Concepts relating to Research Design #.

### UNIT-II: SAMPLING AND SCALING TECHNIQUES

**18 hours**

Sample Design # different types of sampling designs # – probability and non- probability methods. Technique of developing measurement tools, Meaning of scaling, rating scale, scale construction techniques – arbitrary scales, differential scales, summated scales, cumulative scales, factor scales.

### UNIT-III: DATA COLLECTION

**18 hours**

Methods of Data Collection, Primary Data - Observation Method, # Interview Method, Questionnaires, Schedules, Difference between Questionnaires and Schedules #. Secondary Data - Selection of Appropriate Method for Data Collection, Case Study Method. Processing of data – editing and coding of data.

### UNIT-IV: MEASURE OF CENTRAL TENDENCY, DISPERSION & CORRELATION

**18 hours**

# Meaning and Scope of Statistics #, Measure of Central Tendency – mean, median and mode. Measures of dispersion – range, quartile deviation, mean deviation, standard deviation and co-efficient variation. Correlation – Definition, difference between co-efficient of Correlation and Rank Correlation, Regression analysis.

### UNIT-V: TESTS OF SIGNIFICANCE

**18 hours**

Tests of Significance/ Hypothesis – meaning. Parametric Tests for Small Sample – Student’s t-distribution, Fisher’s Test – ANOVA (One Way and Two Way). Non-Parametric Tests for Large Sample – Chi-Square, # important characteristics of  $\chi^2$  #.

#.....# **Self Study Portion**

**TEXT BOOKS:**

**T.B-1** Kothari .C.R, Research Methodology methods and techniques, 2<sup>nd</sup> Edition, New Age International Publishers, New Delhi, 2004.

**T.B-2** Manoharan.M, Statistical Methods Theory and Practice, Palani Paramount Publications, Tamil Nadu, 1992.

**UNIT-I** Chapter I, II & III **T.B-1**

**UNIT-II** Chapter IV & V **T.B-1**

**UNIT-III** Chapter VI & VII **T.B-1**

**UNIT-IV** Chapter VI, VII, IX & X **T.B-2**

**UNIT-V** Chapter XVIII & XIX **T.B-2**

**Books for References:**

1.Gupta.S.P, “Statistical Methods”, Sulthan Chand and Sons, New Delhi, 1996.

2.Devada.R.P, “A Handbook on Methodology of Research”, Sri Ramakrishna Vidyalaya Coimbatore, 1989.

3.Agarval.V.P, “Statistical Methods”, Sterling Publishers, Private Limited, 1990.

4.Best.J.M. & Kahn.J.V, “Research in Education”, Prentice Hall of India Limited, New Delhi, 1989.

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code		Title of the Paper			Hours	Credits			
II	20PFT2CC5		RESEARC METHODS AND STATISTICS			6	5			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓		✓		✓		✓		✓
CO2	✓	✓		✓			✓	✓		
CO3	✓	✓		✓		✓	✓	✓		
CO4	✓	✓	✓	✓	✓		✓	✓		✓
CO5	✓	✓		✓	✓	✓		✓		
Number of Matches= 31, Relationship : Moderate										

Prepared by :

1. R. Jeevitha

checked by:

1. Dr. M. Aneez Mohamed

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20PFT2CC6	Core – VI	TECHNICAL TEXTILE	6	5	100	25	75

### Course Outcomes:

1. Acquire the fibers in technical textiles.
2. Identify the recent development in technical textiles.
3. Understand the concept of textile technology. .
4. Categorize the minor and allied industries.
5. Analysis the different research organization..

### UNIT-I: TECHNICAL TEXTILE

**18 hours**

Definition and Scope of Technical Textiles. Technical Textiles-Field of applications. Role of Fibers in Technical textile-classic fibres and special fibres. Fabric Structure –Woven, Knitting and Non-Woven-Laid scrims, Braiding and rope making. # Different types of Fabric in Technical Textiles – Properties#.

### UNIT-II: RECENT DEVELOPMENT IN TECHNICAL TEXTILES

**18 hours**

Role of textiles in agriculture - Horticulture-Forestry and fishing. Features of build tech-Textile reinforcement, Textile roofing and membranes. Clothing-Components of clothing and footwear industry. Geo textile-Soil sealing, Drainage, Textile for civil and hydraulic engineering. # Components of Home tech-furniture #. Textiles in industry - Filtration textile reinforcement.

### UNIT-III: DEVELOPMENTS IN TEXTILE TECHNOLOGY

**18 hours**

Medical and hygienic textiles. Textiles for transportation –automotive, aerospace, shipbuilding and railway vehicle industries. Textiles for environment protection. # Textile for personal and property protection # - Work wear and fire protection. Packtech-Industrial and consumer pack. Sport textiles-sporting and leisure applications.

### UNIT-IV: TEXTILE INDUSTRIES OF INDIA MINOR & ALLIED INDUSTRIES

**18 hours**

Origin and Growth of Major Textile Industries – Cotton, Wool, Silk and Jute. Growth of synthetic and manmade textiles-Viscose rayon, Nylon and polyester # Recent Developments in these Industries #. Origin and Growth of Minor Textile Industries and Allied Industries – Coir, Leather, Paper, Chemicals, Dyes Textile Machinery

### UNIT-V: SMALL SCALE INDUSTRIES AND RESEARCH ORGANIZATION

**18 hours**

Origin, Growth and Development of Hosiery and Readymade Garment ,Handloom, Power loom and Kadhi Industries Ministry of textiles-Role and its functions. Research Organization - SITRA, NITRA, SASMIRA, AITRA, TEA, SIMA, NIFT, CIRCOT, BITRA, MANDRA, Indian Jute Research Association # Export promotion Council-AEPC, ISEPC #.

#.....# Self Study Portion



**TEXT BOOK:**

**T.B-1** Horrocks, A.R. and Anand, S.C, Handbook of Technical Textiles, The Textiles Institute, Wood Head Publishing Ltd., England, 2000.

**T.B-2** Study material prepared by the department.

**T. B-3** Textile Economics - Study Material prepared by the Department.

<b>UNIT-I</b>	Chapter I & II	<b>T.B-1 &amp; 2</b>
<b>UNIT-II</b>	Chapter XIX	<b>T.B-1 &amp; 2</b>
<b>UNIT- III</b>	Chapter XV	<b>T.B -1 &amp; 2</b>
<b>UNIT-IV</b>	Chapter XVIII	<b>T.B-2 &amp; 3</b>
<b>UNIT-V</b>	Chapter XVI	<b>T.B-2 &amp; 3</b>

**Books for References:**

1. Pandey.S.N, Potential for the use of natural fibers in civil engineering, Jute technological research laboratory, 2002.
2. Rigby, A.J.andAnand S.C, Non-Woven in medical healthcare products, technical textiles, Int., 1996.

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code		Title of the Paper			Hours	Credits				
II	20PFT2CC6		TECHNICAL TEXTILE			6	5				
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓		✓		✓	✓				
CO2	✓	✓		✓		✓	✓	✓			
CO3	✓	✓		✓		✓		✓		✓	
CO4				✓		✓	✓	✓			
CO5	✓	✓		✓		✓	✓	✓			
Number Of Matches= 30, Relationship : Moderate											

Prepared by :

1. R.Jeevitha

checked by:

1. Dr. M. Aneez Mohamed

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20PFT2CC7P	Core – VII	COMPUTER AIDED FASHION DESIGNING PRACTICAL – I	6	4	100	25	75

**Course Outcomes:**

1. Develop the Principles of related fields into the use of Rich peace softwares.
2. Analyze relationship between design elements for parametric modelling
3. Prepare and Evaluate design solutions based on defined criteria
4. Design and Modify the functions of richpeace software.
5. Demonstrate digital proficiency( use of computer, basic operating system functions, network, drive and drive navigation) etc.

**UNIT-1: CROQUIES**

1. Development of Croquies based on the Head Theories for Children, women and men in

Various poses. **9 hours**

**UNIT-2: ELEMENTS OF DESIGN**

2. Creating a garment for-printed design. – Children’s wear. **9 hours**

3. Creating a garment for – Stripped and checks Design- men’s wear. **9 hours**

4. Creating a garment for – One way and Overall Design- women’s wear. **9 hours**

**UNIT-3: SPECIAL OCCASION COSTUMES**

5. Create the special occasion costume of any state – Both Men and Women. **9 hours**

6. Create the special occasion costume of any state – Both Men and Women. **9 hours**

**UNIT-4: BRIDAL WEAR**

7. Create the bridal wear costumes based on culture (any 2) – Both Men and Women. **9 hours**

8. Create the bridal wear costumes based on culture (any 2) – Both Men and Women. **9 hours**

## UNIT-5: FASHION ACCESSORIES AND ORNAMENTS

9. Designing different types of Fashion Accessories with eco friendly

**9 hours**

- Hand bag (Jute bag ,silk bags)
- Hats/Head coverings.

10. Designing different types of intimate garment.

**9 hours**

- Disabled wears
- Pregnancy wears

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits			
II	20PFT2CC7P	COMPUTER AIDED FASHION DESIGNING PRACTICAL – I					6	4			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓		✓	✓	✓		✓	✓	✓	
CO2		✓		✓	✓	✓		✓	✓	✓	
CO3	✓	✓			✓			✓	✓	✓	
CO4	✓	✓			✓	✓		✓		✓	
CO5		✓		✓		✓		✓	✓	✓	
Number of Matches= 33, Relationship : Moderate											

Prepared by :

1. C. Jenitta

checked by:

1. Dr. M. Aneez Mohamed

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20PFT2CC8P	Core – VIII	DESIGN WITH PRINTS PRACTICAL	6	4	100	25	75

**Course outcomes:**

1. Construct designs with discharge ,resist and various print methods
2. Contrast and design garments based on prints
3. Illustrate the direct print methods
4. Develop the Accessories with direct prints
5. Choose various methods of print technique

**UNIT I - Resist Printing**

1. Design samples with different Tie and Dye methods 15 hours
2. Design samples with types of Batik

**UNIT II - Garment Designing and Construction for Kids in Casual style**

1. Construct Casual style of garment for girls with Tie and Dye methods 15 hours
2. Construct Casual style of garment for boys with Tie and Dye methods

**UNIT III - Direct Printing**

15 hours

1. Design samples with stencil print creating stencils
2. Design samples with different types of Block printing
3. Design samples with Screen Printing technique

**UNIT IV - Accessories Designing and Construction for men and Women.**

15 hours

1. Design and construct a hand bag with stencil print
2. Design a head gear with any type of Block printing methods
3. Design and construct a sling bag with Screen Printing technique

**UNIT IV - Painting and Imagination**

15 hours

1. Design a Sample and a garment with Fabric Painting
2. Design and Create any garment or accessories with any of the above methods

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code		Title of the Paper			Hours	Credits			
II	20PFT2CC8P		DESIGN WITH PRINTS PRACTICAL			6	4			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓		✓	✓	✓	✓	
CO2	✓		✓	✓	✓	✓		✓	✓	✓
CO3	✓	✓		✓	✓	✓	✓		✓	
CO4			✓	✓		✓	✓	✓		✓
CO5	✓	✓	✓	✓	✓	✓			✓	✓
Number of Matches= 37, Relationship : High										

Prepared by :

1. V. C. Archana

checked by:

1. Dr. M. Aneez Mohamed

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20PFT2DE2A	DSE – II	ENTREPRENEUR DEVELOPMENT	6	4	100	25	75

**COURSE OUTCOME:**

1. Acquire the parameters to assess opportunities and constraints for new business ideas, market strategies.
2. Discuss the strategies for implementation of ideas.
3. Schedule the finance for business.
4. Develop and lead a business in successful manner.
5. Analyze challenges facing by entrepreneur and labor recruitment.

**UNIT-I: Business Idea creation & Market Assessment**

**16 hours**

Business ideas, methods of generating ideas, and opportunity recognition Steps involved in Setting up Business – identifying, selecting a Good Business opportunity, Market Survey and Research- Techno Economic Feasibility Assessment –# Preparation of Preliminary Project Reports # – Project Appraisal – Sources of Information

**UNIT-II: Preparation for Business plans**

**16 hours**

Preparing a Business Plan- Meaning and significance of a business plan, Importance of BP, components of a BP, and feasibility study Business Opportunity Identification, Managing a successful business, Preparation for product – Pricing – Objectives, Influencing factors, methods strategies for new products and existing products, # Product Life Cycle (PLC) #.

**UNIT-III: Financial plan for Business**

**16 hours**

Financing the New Venture: Importance of new venture financing, types of ownership securities, venture capital, types of debt securities, Determining ideal debt-equity mix, and # Financial institutions and banks#, choosing the legal form of new venture, protection of intellectual property, and marketing the new venture.

**UNIT-IV: Government Support to Entrepreneur**

**15 hours**

Licensing in Entrepreneurship, Government’s schemes Entrepreneur - Multiplier Grants Scheme (MGS) for IT Research and Development, The Venture Capital Assistance Scheme, Credit Guarantee, Raw Material Assistance, MSME Market Development Assistance, Atal Incubation Centres (AIC), # Taxation benefits to small scale industry#.

**UNIT-V: Challenges Faced by Entrepreneur**

**15 hours**

Labor recruitment, HR management, production planning, Achievement Motivation Training, Self Rating, Business Games, Thematic Apperception Test – Stress Management, #Entrepreneurship Development Programs – Need, Objectives#.

#.....#

**TEXT BOOKS:**

**T.B-1** Gupta and Srinivasan N.P., Entrepreneurial Development, Sultan Chand & Sons, New Delhi.

**T.B-2** Donald F Kuratko, “ Entrepreneurship – Theory, Process and Practice”, 9th Edition, Cengage Learning 2014

**Books for References:**

1.S.S. Khanka, “Entrepreneurial Development”, S.Chand& Company Ltd., Edn.2001, New Delhi.

2.Hisrich R D, Peters M P, “Entrepreneurship” 8th Edition, Tata McGraw-Hill, 2013.

3.Mathew J Manimala, “Entrepreneurship theory at cross roads: paradigms and praxis” 2nd Edition Dream tech, 2005.

4. Rajeev Roy, ‘Entrepreneurship’ 2nd Edition, Oxford University Press, 2011.

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits				
II	20PFT2DE2A	ENTREPRENEUR DEVELOPMENT					6	4				
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	✓	✓	✓	✓		✓	✓	✓				
CO2	✓	✓	✓	✓		✓	✓		✓			
CO3			✓	✓		✓	✓			✓		
CO4		✓	✓	✓			✓		✓			
CO5	✓		✓	✓	✓	✓		✓	✓			
Number of Matches= 31, Relationship : Moderate												

Prepared by :

1. M. Abirami

checked by:

1. Dr. M. Aneez Mohamed

Semester	Code	Course	Title of the Course	Hours	Credits	Max. marks	Internal marks	External marks
II	20PFT2DE2B	DSE – II	HOME TEXTILES	6	4	100	25	75

**Course Outcome:**

1. Recognize the different types of home furnishing.
2. Design the production method of different types of home textile products.
3. Practice the student of interior design knowledge on the foundation in various aspects of fabrics can be applied in design of interiors.
4. Experiment the finishing process to enhance the fabric end-use potential.
5. Improve the product with color and pattern into fabric to enhance the sale ability of textile products.

**UNIT I: INTRODUCTION TO HOME TEXTILES 18 hours**

Definition, Types of Home textiles (Woven and non-woven). Factors influencing, selection of Home textiles. Recent trends in Home Textiles.

**UNIT II: FLOOR AND WALL COVERINGS 18 hours**

Definition of floor covering-Types of floor covering - hard, soft, and resilient floor covering, #Uses and care of floor covering.# Definition of wall covering, Uses and care of wall coverings.

**UNIT III: DOOR AND WINDOW TREATMENTS 18 hours**

Definition and parts of Door and Windows. Definition - Curtains and Draperies, Materials used for Curtains and Draperies, Types of curtains - Draw, tailored, pleated, cafe curtains, three tire curtains. Type of draperies – swags. Accessories - rods hook, rails, racks, curtain tape pins.

**UNIT IV: SOFT FURNISHING. FOR LIVING AND BEDROOM 18 hours**

Definition for Living and Bedroom linens-Types of living and bedroom linens-Sofa, sofa covers, Wall hangings, Cushion/cushion covers, Upholsteries, Bolster and bolster covers, Bed sheets, covers, Blankets, blanket covers, Comfort and comfort covers, Bed spreads, Mattress and mattress covers, #Pillow and pillow covers, Pads, Uses and care advantages and disadvantages#.

**UNIT V: SOFT FURNISHING FOR KITCHEN AND BATHROOM LINEN 18 hours**

Definition-Types of kitchen linens, Dish cloth, hand towels, Fridge, mixie and grinder covers. Their uses and care. Definition for dinning, Bathroom linens – types#. Factors affecting the selection of table and bathroom linens. Use and care #.

#.....# **Self Study Portion**



**TEXT BOOK:**

T.B.1 Home Textile –Study Material prepared by the Department.

**Books for References:**

1. Cheryl Mendelson, Home Comforts the Art and Science Keeping house Published by Scriber, New York. 2005.
2. Hanlyn octopus, Cushions and Pillows- Professional Skills made easy, Octopus Publishing group – New York, 2001.
3. Magi Mc McCormick Gordon, the Ultimate Sewing Book 200 sewing ideas for you & your home. Collins & Brown, London, 2002.
4. Anne van Wagner Childs Leisure Arts- Inc., Sew- no- more Home Décor ,Arkansas, U.S.A,1993.
5. Mary Mulasi, Garments with style, Chiton Book Company,Pennsylvania,1995.

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Paper					Hours	Credits			
II	20PFT2DE2B	ENTREPRENEUR DEVELOPMENT					6	4			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓			✓	✓	✓	✓		✓	
CO2	✓	✓		✓		✓	✓	✓			
CO3	✓	✓					✓		✓		
CO4	✓			✓	✓	✓			✓		
CO5	✓	✓				✓		✓		✓	
Number of Matches= 32, Relationship : Moderate											

Prepared by :

1. K.R.Thenmozhi

checked by:

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