

**MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI-12, TAMILNADU**

**B. Sc .FASHION DESIGNING AND APPAREL MAKING (2017-2018 onwards)**

Sl.No	Category of Subjects	Contact Hrs/week	Credits
<b>SEMESTER III</b>			
1.	Core- Fabric structure and Design	5	4
2.	Core-Fashion Designing	4	4
3.	Core-Fashion and clothing psychology	4	4
4.	Major Practical III-Designing and Construction of women's wear	4	2
5.	Allied III- Computer in the Garment Industry	3	3
6.	Allied Practical III-Basic Illustration	4	2
7.	Skill Based Core-Textile Processing	4	4
8.	Non- Major Elective 1. Embroidery and Surface working 2.Fashion Concept	2	2
9.	Common-Yoga	0	2
<b>Subtotal</b>		<b>30</b>	<b>27</b>
<b>SEMESTER IV</b>			
10.	Core-Knit Fabric and Structure	5	4
11.	Core- Fashion Merchandising and Marketing	4	4
12.	Core-Technology of Textile Finishing	4	4
13.	Major Practical IV-Computer Aided Design	4	2
14.	Allied IV- Printing Technology	3	3
15.	Allied Practical IV-Textile Processing	4	2
16.	Common-Computers for Digital Era	0	2
17.	Skill Based Core-Entrepreneurial Development	4	4
18.	Non- Major Elective 1.Fashion Illustration 2.Fibre to Fashion	2	2
19.	Extension Activity –NCC,NSS,YRC,YWF,PE-	0	1
<b>Subtotal</b>		<b>30</b>	<b>28</b>
<b>SEMESTER V</b>			
20.	Core-Apparel Costing	6	4
21.	Core-Home Textile	5	4
22.	Core-Care and maintenance of Textiles	5	4
23.	Major Practical V- Designing and Constructing Men's wear	4	2
24.	Major Elective - Technical Textiles	4	4
25.	Skill Based Common- Personality Development/Effective Communication/Youth Leadership	2	2
26.	Mini Project	4	6

<b>Subtotal</b>		<b>30</b>	<b>26</b>
<b>SEMESTER VI</b>			
27.	Core-Textile Testing and Quality Control	4	4
28.	Core-Apparel Export Trade Documentation	4	4
29.	Core-Clothing care and Wardrobe Planning	4	4
30.	Core- Apparel Production and Quality Management	4	4
31.	Major Practical VI-Textile testing and Quality Control	4	2
32.	Major Elective – Fashion Portfolio	4	4
33.	Major Project	6	7
<b>Subtotal</b>		<b>30</b>	<b>29</b>
<b>Total</b>		<b>110</b>	

Total 140 credits- exclusive of Yoga and Computers for Digital Era

**Semester – III - Core**

**FABRIC STRUCTURE AND DESIGN**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of fabric forming techniques and orients the learners in the field of fabric design. The learners are expected to know the classification of weaves, construction of elementary weaves in textile industry.

**UNIT-I: Elements of woven design:**

Elements of woven design, Methods of fabric representation, draft and lifting plan, construction of elementary weaves – plain, wrap rib, weft rib, twill, modification of twills, satin and sateen weaves – their derivatives.

Principles of shuttleless looms- projectile, air-jet, water-jet, rapier. **(14L)**

**UNIT – II: Fancy weave:**

Ordinary and brighten honey comb – its modification, huck-a-back and its modifications, crepe weave, mock leno weave. **(11L)**

**UNIT – III: Extra – warp and extra weft figuring:**

Extra – warp and extra weft figuring – single and two colours, planting, backed fabrics, warp and weft backed fabrics. **(12L)**

**UNIT-IV: Pile fabric:**

Pile fabric – Formation of pile – weft pile- warp pile- Bedford cord and its Modifications. **(12L)**

**UNIT – V: Double cloth:**

Double cloth – classification, self-stitched – face to back, back to face, both, Centre stitched – warp and weft. **(11L)**

**Reference:** **(Total: 60L)**

1. Watson's textile design and colour, GrosichkiliZNewness, Butter worths, London 1980.
2. Watson's advanced textile design, Grosichkli Z Newness, Butter worths, London 1989.
3. Textiles – fibre to fabric, corbmann B.P, Intenationalstudents edition, McGraw Hill book Co, Singapore 1985.

**Semester – III - Core**

**FASHION DESIGNING**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of fashion design and orients the learners in the field of costume design. The learners are expected to know the elements of design, principles of design, fashion designers and colors in fashion industry.

**UNIT I: Terms related to the fashion industry:**

Terms related to the fashion industry- Fashion, style, fad, classic, collection, chic, custom made, mannequin, fashion show, trend, forecasting, high fashion, fashion cycle, haute couture, culture, couturier, fashion director, fashion editor, line, knock-off avantgarde, bridge, buying house, fashion merchandising, pre-a-porter, sample. (13L)

**UNIT II: Design:**

Design- Definition and types – structural and decorative design. Elements of design – line, shape or form, color, size and texture. Application of structural and decorative designs in a dress. Selection and application of trimmings and decorations. Fashion accessories- shoes, handbags, hats, ties – different types/shapes. Principles of design- balance- formal and informal, rhythm- through repetition, radiation and gradation, emphasis, harmony and proportion. Applications of principles of design in a dress. (12L)

**UNIT III: Colour:**

Colour- definition, colour theories- prang color chart and munsell color system. Dimensions of color- hue, value and intensity. Standard color harmonies- color in principles of design- application of the same in dress design. (12L)

**UNIT IV: Designing dresses for unusual figures:**

Designing dresses for unusual figures types - stout figure, slender figure, narrow shoulder, broad shoulder, round shoulder, large bust, flat chest, large hip, large abdomen, round face, large face, small face. (12L)

**UNIT V: Designers:**

Designer- Role & function, Types of designer. Fashion and season, Designing dresses for different occasions – business meetings, parties/dinners, evenings, leisure hours, marriage functions, sports, airhostess & hoteliers, (11L)

**Reference:**

**(Total:60L)**

1. Fashion sketch book – BinaAbling, Fair Child Publications, New York Wardrobe.
2. Inside the Fashion Business – Heannette A Jarnow et-al, Macimilan Publishing Company, New York.
3. Art and Fashion in Clothing Selection – McJimsey and Harriet, Iowa State University press, Iowa.

**Semester – III - Core**

**FASHION AND CLOTHING PSYCHOLOGY**

**L T P C**  
**4 0 0 4**

**Preamble:** This course facilitates an understanding of fashion accessories and orients the learners in the field of fashion design. The learners are expected to know the fashion psychology and fashion designer in fashion industry.

**UNIT – I**

Fashion Accessories – Shoes, handbags, jewelry, hats, ties and other. Prepare an album for accessories. (13L)

**UNIT – II**

Figure irregularities – stout figure, thin figure, slender figure, narrow shoulders, broad shoulders, round shoulders, large bust, flat chest, large hip, large abdomen, round face, large face, small face and broad face, prominent chin and jaw and prominent forehead. (12L)

**UNIT – III**

Factors affecting fashion changes – Psychological needs of fashion, psychology of fashion, Technology, Economical, Political, legal and seasonal. (12L)

**UNIT – IV**

Recurring silhouettes – changes in silhouettes; fashion cycle; Prediction fashion; Role of costumers as status symbol, clothes as sex appeal, self identity, cultural value. (13L)

**UNIT – V**

Understanding Fashion Designer: Designer types – Classicist, idealist, Influenced, Realist Thinking poet. (10L)

**(Total : 60L)**

**Reference:**

1. Benneett“ Femina Book of Fashion”, Coleman & Co., Ltd., Mumbai (1998).
2. Jeaneettee. A. Jarnow, MiriamGuerrero, “Inside the Fashion Business”, Mecomillion Publishing Company New York 1987.
3. Harriet T. Mcjimesey, “Art and Fashion in clothing selection”, Thelowa state University Press, Ames, Iowa 1973.

**Semester – III - Core Practical-III**

**DESIGNING AND CONSTRUCTION OF WOMENS WEAR**

**L T P C**  
**0 0 4 2**

**1. SIX GORE SAREE PETTICOAT**

Feature:

- a) Six panel
- b) Frilled edge

**2.FOUR GORE SAREE PETTICOAT**

Features:

- a) Four panel
- b) Frilled edge

**3.BLOUSE:**

Features:

- a) front open
- b) Fashion neck
- c) Waist band
- d) Any sleeve

**4.KATORI CHOLI**

features:

- a) Kato
- b) Waist band
- c) Belt.

**5.MIDDI**

Features:

- a)With (or) without open
- b)Waist band of elastic
- c)Panel

**6. MIDDITOP**

Features:

- a)Back (or) Front open
- b) Collar
- c) Fashioned full sleeve with or without cuff.

**7.MAXI**

Features:

- a) Back open
- b) Trimming in front
- c) Fashioned neck
- d) Fashioned sleeve

**8. NIGHTY**

Features:

- a) Yoke
- b) Bell sleeve
- c) Gathered bottom
- d) Attaching trimmings.

#### 9. SALWAR

Features:

- a) Tape or Elastic attached waist
- b) Designed bottom.

#### 10. KURTA

Feature:

- a) Fashioned neck
- b) Fashioned sleeve
- c) Side seam slit.

#### 11. LADIES PANT

Features:

- a) Waist band
- b) Zip attached
- c) Patch pocket

#### 12. LAIDES SHIRT

Features:

- a) Half or Full open
- b) Collar
- c) Half or Full Sleeve

#### 13. SURWAR

Features

- a) Gathered waist with tape or elastic
- b) Bottom design

#### 14. KAMEEZ

Features:

- a) Fashioned front body
- b) Back or Front open
- c) Fashioned neck
- d) Fashioned sleeve.

#### **Reference**

1. Practical Clothing Construction Part-I & II – Mary Mathew
2. Zarapkar System of Cutting - K.R.Zarapkar
3. Easy Cutting – Juvekar
4. Commercial system of cutting – Juvekar
5. Dress making – Smt. ThangamSubramaniam

**Semester – III - Allied-III**

**COMPUTER IN THE GARMENT INDUSTRY**

**L T P C**

**3 0 0 3**

**Preamble:** This course facilitates an understanding the role of computer in garment industry and orients the learners in the field of design .The learners are expected to know the application of computer in pattern making and grading in textile industry.

**UNIT – I:Classification of computers:**

Classification of computers, computer generations, computer specification, organization of computer sections. Types of storage devices (Primary and Secondary), input devices, output devices. **(10L)**

**UNIT – II: Role of computers:**

Role of computers in fashion industry-Information flow – CAD,CAM,CIM,CAA, PDC – Definition and Functions.

Computers in production planning and production scheduling, computerized colour matching system. **(8L)**

**UNIT – III:CAD in Designing:**

CAD in Designing

Textile designing – Weaving, knitting and printing.

Creating embroidery designs.

Garment designing -2D and 3D forms. **(8L)**

**UNIT – IV:CAD in Pattern making and grading:**

CAD in Pattern making and grading – system description – information flow – process involved pattern making, process involved in pattern grading. **(10L)**

**UNIT – V:Computer application :**

Computer application in fabric defect checking, laying / spreading, cutting marker planning, labelling –parts and functions. Computerized sewing machines. **(9L)**

**References:**

**(Total :45L)**

1. Clothing Technology – HanneloreEberle et – al, Verlaag Europa – Lehrmittel, Vollmer GmbH&Co4287, Haan – Gruilen.
2. Computer Fundamentals – P K Sinha, BPB Publications, Delhi (1992)
3. The technology of clothing manufacture – Harold Carr ad Barbara Latham, Blackwell Ltd (1994)
4. Pattern Grading for Women’s Cloths The Technology of sizing – Gerry Cooklin, Blackwell Science Ltd (1990)



**Semester – III - Allied Practical-III**

**BASIC ILLUSTRATION**

**L T P C**  
**0 0 4 2**

**UNIT I**

Lines and line drawings – object drawing and perspective view drawings, Enlarging and reducing motifs. Learning the usage of various drawing and sketching mediums – Pencils, Ink, Charcoal, Brushes, Crayons, Water color and Poster colors.

**UNIT II**

Drawing a stick figure for both normal and fashion figure. Forming a fleshy figure over a stick figure.

**UNIT III**

Dividing the figure into various parts using lines like plumb line, center front line, princess line, waist line, side seam, armhole, jewel neckline, panty line, bust line etc., Practicing the art of creating textures.

**UNIT IV**

Illustrating pattern details – pockets, sleeves, yokes, skirts, trousers, tops, etc.,  
Illustrating different types of ornaments and accessories.

**UNIT V**

Illustrating details of ruffles, cowls, shirring, smocking, quilting, draping, gathers, pleats, frills and flounces. Basic concept and types of silhouette.

**References:**

1. Fashion Design Drawings & Presentation, Ireland Patrick John.
2. Fashion Design Illustration: Children, Ireland Patrick John.
3. Fashion Design Illustration: Men, Ireland Patrick John.
4. Fashion Design Illustration, Ritu.
5. Foundation in Fashion Design and Illustration – Julian Seaman.

**MSU/2017-18/UG-Colleges/Part-III(B.Sc. Fashion Designing and Apparel Making)**

**Semester – III - Skill based core**

**L T P C**

**TEXTILE PROCESSING**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of dyeing techniques and orients the learners in the field of textile industry. The learners are expected to know the pre-processing techniques and dyeing machines in the textile industry.

**UNIT -1**

Typical sequence of processes, Object and methods. Singeing, Desizing, Scouring, Synthetic Fiber Heat setting, Wool carbonizing, Weighting of silk. Wet processing equipment – Kier - J box – pad roll – U box – Roller bed – Conveyor steamer – stenter.

**UNIT –II**

**(14L)**

Mercerization – Theory process – Methods – Chemicals – effects. Bleaching – Hypo chlorites – Hydrogen peroxide – sodium chlorite, Evaluation of bleached fabric – whiteness – absorbency – chemical damage – residues.

**(11L)**

**UNIT –III**

Dyeing – Definition, classification, Natural Dyes – vegetable dyes, Animal dyes, Mineral dyes, Synthetic dyes – Direct, Disperse, reactive, Acid, Basic, Azoic, Sulphur, Vat, and suitable for different fabrics.

**(12L)**

**UNIT –IV**

Dyeing machines – fiber, yarn and fabric dyeing machines – loose stock fiber bale – hank package – jigger – winch – HT Beam jet – padding mangles. Garment dyeing machines. **(13L)**

**UNIT –V**

Wet processing of polyester, nylon, silk, wool and their blends.

**(10L)**

**TOTAL – 60L**

**Reference**

1. Paters R.H. Textile Chemistry Vol. I. II Textile institute, Manchester 1970.
2. Shenai V.A. "Technology of textile processing" Vol. III. V. VII, VH Sevale publications, BOMBAY 1981.
3. Lewis D.M. "Wool Dyeing" SDC publications England 1990

**MSU/2017-18/UG-Colleges/Part-III(B.Sc. Fashion Designing and Apparel Making)**

**Semester – III - Non Major Elective - 1**

**EMBROIDERY AND SURFACE WORKING**

**L T P C**  
**2 0 0 2**

**Preamble:** This course facilitates an understanding of traditional embroidery used in different states of India and orients the learners in the field of woven textiles of India. The learners are expected to know the hand embroidery stitches, machine embroidery stitches and surface trimmings.

**UNIT-I**

**Hand embroidery:**Running stitch, back stitch, stem stitch, blanket stitch, lazy daisy stitch, chain stitch, herring bone stitch, fish bone, seed stitch and cross stitch. **(6L)**

**UNIT-II**

Feather-single and double, rommanianstitch, fly stitch, long and short stitch, French knot, bullion knot, double knot, satin stitch and couching. **(6L)**

**UNIT-III**

**Machine embroidery:** Running stitch, cordingstitch, satinstitch, long and short, round stitch and eyelet work, **(6L)**

**UNIT-IV**

**Traditional Indian embroidery:**Kashida of Kashmir,kantha of Bengal,phulkari of punjab,embroidery of kutch and kathiawar,kasuti of Karnataka,chikankari of lucknow **(6L)**

**UNIT-V**

**Creating style through surface trimming:** Cut work,beadwork,sequencework,mirrorwork,patchwork,appliquéwork,quilting, fabric painting, drawn thread work, faggoting and smocking. **(6L)**

**Reference :**

**(Total:30L)**

1. Practical clothing construction part I &II –Mary Matthew
2. Indian Embroidery – Kamala devi
3. Creative art of embroidery – Barbara snook

**Semester – III - Non Major Elective - 1**

**FASHION CONCEPT**

**L T P C**

**2 0 0 2**

**Preamble:** This course facilitates an understanding of fashion design and orients the learners in the field of fashion design. The learners are expected to know the elements of design, principles of design, fashion designer and colors in fashion industry.

**UNIT – I**

**Fashion** – Style – Fad Definition – Sources of Fashion – Terms related to Fashion Industry – Boutique, Collection, Classic Chic Fashion Show, Fashion Trends and High Fashion. (6L)

**UNIT – II**

**Role of designer** – Researching the market. Design process, sample production. Sources of design inspiration. Types of designer – High fashion designer, Moderate designer, Stylist and free – lance designer. (6L)

**UNIT – III**

**Colour** – definition characters of colour, theory, colour schemes, colour psychology, visual and physical effect of colour, colour & texture, colour marketing systems. Value & intensity of colour. (6L)

**UNIT – IV**

**Design and Principles of design**, Definition, types of design – structural and decorative design, characteristics of a good design, elements of design, principles of design – Definition – Harmony – Proportion – Scale, balance – Rhythm – Emphasis - and its application in dresses. (6L)

**UNIT – V**

**Components of fashion** – Silhouette, Texture, colour, Acceptance change, environment of fashion – Economic factors, sociological factors, Physical factors Psychological factors. Movement of fashion – cycling of fashion, Stages of fashion cycle. (6L)

**(Total: 30L)**

**Reference:**

1. Goldstein and Goldstein. Art in Everyday life. Mac Millan and co. New York.
2. Mathews M. Practical clothing construction. Part – III cosmic Press, Madras.
3. Markstorm, Dorthy and Jane. Guide to Modern clothings, MC, Graw Hill Boom Company, New York.

**Semester – IV - Core**

**Knit Fabric and Structure**

**L T P C**  
4 0 0 4

**Preamble:** This course facilitates an understanding of fabric forming techniques and orients the learners in the field of knitting .The learners are expected to know the classification of knitting , elements and functions of knitting machines in textile industry.

**UNIT – I**

**Knitting** – Definition. Differentiate weaving and knitting. Classification of knitting.Comparison of warp and weft knitting.Basic knitting elements. (13L)

**UNIT-II**

**Weft knitting** –Definition .Yarn passage diagram of a circular knitting machine- knitting elements and mechanism.Rib, interlock, purl structure. Ornamentation – derivatives. Pique - Variations. Major types of yarns for weft knitting, Defects in weft knitted fabrics. (12L)

**UNIT-III**

Circular rib knitted machine – Elements and functions.

Interlock knitting machine – Elements and functions.

Non-apparel use of knit goods. (11L)

**UNIT-IV**

**Jacquard knitting**- Needle selection for jacquard and non-jacquard Pattern making –Pattern wheel , pattern drum, programmed tape. Calculations – Methods of finding courses per inch, wales per inch and loop length- GSM calculation- count and gauge relationship- efficiency calculation – tightness factor- Production in length and weight units. (12L)

**UNIT-V**

**Warp knitting** – Definition – knitting machines – Variations in warp knitting- Tricot – Variations in guide bars- Knitting cycle. Rachel – variation in guide bars – Knitting cycle. Differentiate Tricot from Rachel. Yarns for warp knitting – common faults in fabrics. (12L)

**Reference:**

1. Knitting Technology – D.B. Ajgaonkar
2. Knitting Technology – David .J.Spencer
3. Textile Mathematics- J.E.Booth

**(Total: 60L)**

**Semester –IV - Core**

**FASHION MERCHANDISING AND MARKETING**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of fashion apparel merchandising techniques and orients the learners in the field of costume design. The learners are expected to know the different types of merchandising techniques, retailing and supply chain management in apparel industry.

**UNIT-I**

**Merchandising** – Definition, types .Fashion merchandising – principles and techniques. Merchandiser – role and function. **(13L)**

**UNIT-II**

**Visual merchandising** technique – Merchandising Ladder – Factors for Route card – Preparation – Effective Expediting procedures – samples and types of samples, Brand – Definition. Branding strategies. **(12L)**

**UNIT-III**

**Apparel Merchandising** – principles and techniques. Apparel Merchandising – Interface with production. **(12L)**

**UNIT-IV**

**Marketing** – definition – nature and scope. Classification of marketing functions – Buying, Assembling, Standardization and Grading, Packing and Packaging, Storage, Advertising, selling, Buying motives, Consumer decision making. Production planning and development, product line policies and strategies, production mix, factors influencing changes in product mix. **(13L)**

**UNIT-V**

**Advertising** – types – preparation of advertising for apparels. Advertising media used in apparel marketing. Advertising department and advertising agencies. **(10L)**

**Reference:**

**(Total:60L)**

1. Path for merchandising – a step by step approach – Moore Evelyn.C.
2. Inside the Fashion Business – J. Arnow and K.G. Dickerson
3. Fashion Merchandising – Laine stone, Jean A Semples .
4. Marketing Management – Dr. B.K. Chatterjee Jaico, Juice Publishing House, Bombay, 1982
5. Marketing – Principles and method – Philip C.F. and Duncon D.T, Irwin publications.

**Semester –IV - Core**

**TECHNOLOGY OF TEXTILE FINISHING**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of textile finishing in the field of textile industry. The learners are expected to know the chemical finishing, functional finishes and effluent plant in textile industry.

**UNIT - I**

**Introduction to finishing** – Definition, Importance, Classification.

Mechanical Finishing – Sanforising – calendaring – Brushing – Decating – Milling. (13L)

**UNIT - II**

**Chemical finishing** – wash and wear finishing. Anti – crease finish, durable finish, Stiff Finish, Denim Finish, stone wash finish.

Application of silicones in finishing processes. (12L)

**UNIT - III**

**Functional finishes** – water proof finishes – water repellent finish – flame retardant finish – soil release finish, antimicrobial finish.

Nano Technology in Textile finishing. (12L)

**UNIT - IV**

**Eco – friendly processing** – Definition and importance. Study of conventional processing with eco – friendly processing. Enzymes – characteristics, Types. Application of enzymes in textile (12L)

**UNIT - V**

**Effluent plant** – effects from various plants – various process for treating waste water. (11L)

**Reference:**

**(Total: 60L)**

1. Shenai V.A. “ Technology of Finishing” Sevek Publications, Mumbai (1996)
2. Manivasaga. N. Treatment of Textile Processing Effluents”, Sakti Publications.
3. Bernard. P. Corbmann” Textile Fibre to Fabric” – McGraw Hill, 1983.

**Semester – IV - Core practical - IV**

**COMPUTER AIDED DESIGN**

**L T P C**  
**0 0 4 2**

**Create the following designs**

**1. Motifs / small designs.**

Embroidery designs for kerchiefs, Neck lines  
Chest Prints for T – shirts

**2. Children’s Garments**

Jabla – different styles  
Frocks –different styles  
Middi and Tops – different styles

**3. Women’s Garments**

Churidhar – different styles  
Full gowns - different styles  
Middi&Tops - different styles  
Princess line Dress - different styles  
House coats, Aprons, Nighties

**4. Men’s Wear**

S B Vest  
T- Shirt - different styles  
Shirts - different styles  
Kurtapyjama - different styles

5. Create logos for branded companies.

6. Create label for garments / companies

7. Prepare charts for production planning and scheduling.



**Semester – IV - Allied-IV**

**PRINTING TECHNOLOGY**

**L T P C**

**3 0 0 3**

**Preamble:** This course facilitates an understanding of printing techniques and orients the learners in the field of wet processing. The learners are expected to know the printing machine, styles of printing and printing methods in textile industry.

**UNIT – I**

**Introduction to printing** – definition, Difference between printing and dyeing –preparation of cloth for printing – cotton, wool, silk, viscose rayon, and polyester. Preparation of printing paste – essential ingredients used in printing paste – various thickening agents and it’s preparation. (10L)

**UNIT – II**

**Methods of printing** – definition, classification – direct, discharge and resist styles, conversion style and crimp style. Foam printing, flock printing, Kalamkari printing, Bubble printing and multi colour printing. After treatments for printed goods. (10L)

**UNIT – III**

**Printing** – Types of Machine for printing, preparation of screen, table and squeezes used for screen-printing. Automatic screen printing, roller printing-faults and it’s rectification, Rotary printing and transfer printing. Advantages and disadvantages of various methods of printing. (8L)

**UNIT – IV**

**Stencil printing** – preparation of stencils and different stencil techniques used in printing. Block printing – Preparation of hand blocks and application of block on apparel, Tie and Dye techniques – types of tie and dye techniques. Batik printing – Learning the art of batik printing (8L)

**UNIT – V**

**Finishing** – Temporary, permanent and various types of fibremercerisation. (9L)

**Reference: (Total:45L)**

1. Beginners Guide to fabric Dying and printing – By Shirat and Rabirision. P. Technical Books, London, 1982.
2. Technology of Textile Printing, Prayag, R.S., L.R. PrayagDhaund, 1985
3. The Thames &Hudson manual of Textile Printing, story, Joyce Thomas and Hudson, London, 1992.

**Semester – IV - Allied Practical-IV**

**TEXTILE PROCESSING**

**L T P C**

**0 0 4 2**

Prepare the following

- a. Preparation of soaps and detergents
- b. Preparation of natural and commercial starches
- c. Application of stain removal methods on fabrics
- d. Preparation of samples for processing
  - Desizing
  - Scouring
  - Bleaching
  - Mercerising
  
- e. Dye the given fabric using suitable dye
  - Reactive dye (Hot & cold)
  - Direct dye
  - Sulphur dyes
  - Vat dyes
  - Disperse dyes
  - Acid dyes
  - Basic dyes
  - Vegetable dyes (any one)
  
- f. Printing : preparation of samples for printing- cotton, polyester & silk.
  1. Preparation of printing paste.
  2. Create designs with block printing – vegetable, wooden block.
  3. Create designs with stencil printing – for chest/neck & yoke designs
  4. Tie & dye designs – single, double & multi color.
  5. Batik printing - single, double & multi color.
  6. Print a design using screen printing methods.

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**Semester – IV - Skill based core**

**L T P C**

**4 0 0 4**

**ENTREPRENEURIAL DEVELOPMENT**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of the concept of Entrepreneurship and orients the learners in the field of clothing industry. The learners are expected to know the Project Identification, Institutional service to Entrepreneur and Institutional finance to Entrepreneur in garment industry.

**UNIT - I**

Concept of Entrepreneurship: Definition Nature and Characteristics of Entrepreneurship – Functions and types of Entrepreneurship phases of EDP. Development of women Entrepreneur and rural Entrepreneur – including self employment of women council scheme. (14L)

**UNIT – II**

The Start- up process, Project Identification – Selection of the product – Project formulation evaluation – Feasibility Analysis, Project Report. (11L)

**UNIT - III**

Institutional service to Entrepreneur – DIC, SIDO, SIC, SISI, SSIC, SIDCO, ITCOT, IIC, KUIC and commercial Bank. (12L)

**UNIT –IV**

Institutional finance to Entrepreneur – IFCI, SFC, IDBI, ICICI, TIIC, SIDCS, LIC AND GIC, UIT, SIPCOT – SIDBI and commercial Bank venture capitals. (13L)

**UNIT –V**

Incentives and subsidies – Subsidized Services – Subsidy for market. Transport – seed capital assistance – Taxation benefit to SSI – role of Entrepreneur in export promotion and import substitution. (10L)

**REFERENCES:**

**(Total :60L)**

1. Entrepreneurial Development – C.B.Gupta and N.P. Srinivasan
2. Fundamentals of Entrepreneurship and small Business – Renu Arora and S.KI. Sood
3. Entrepreneurial Development – S.S. Khanka
4. Entrepreneurial Development – p. Saravana Vel
5. Entrepreneurial Development – S.G. Bhanushali
6. Entrepreneurial Development – Dr. N. Ramu

**Semester – IV - Non Major Elective - 2**

**Fashion Illustration**

**L T P C**  
**2 0 0 2**

**Preamble:** This course facilitates an understanding of fashion illustration and orients the learners in the field of fashion design. The learners are expected to know the human anatomy and stylized drawing in fashion industry.

**UNIT-I**

Human anatomy-study of human anatomy in terms of shapes, sizes and movements.(6L)

**UNIT-II**

Drawing a flesh figure –drawing a fleshy figure from a stick figure. Dividing the figure into various parts using lines like plumb line, centre front line, princess line, waist line, side seam, arm hole, jewel neckline, pantyline, bust line etc.(6L)

**UNIT-III**

Drawing the face of the croquis- drawing the face of a fashion figure proportion and placement of facial features, each feature to be dealt separately and faces to be analyzed into croquis face.(6L)

**UNIT-IV**

Drawing hairstyles and accessories on the croquis. drawing various fashionable hair styles and accessories on the croquis.(6L)

**Unit-V**

Women's project, Create a mood board-color palette- customer profile-illustration-specification sheet.  
(6L)

**REFERENCE:**

**(Total:30L)**

1. The style source book- Judith miller, Stewart, tabori and chang. Newyork
2. Fashion drawing the basic principles by Anne Allen and Julian seaman
3. Design studied by Manmeetsodhia – Kalyani publishers.

**MSU/2017-18/UG-Colleges/Part-III(B.Sc. Fashion Designing and Apparel Making)**

**Semester – IV - Non Major Elective - 2**

**Fibre to Fashion**

**L T P C  
2 0 0 2**

**Preamble:** This course facilitates an understanding of fibre to fashion and orients the learners in the field of textile. The learners are expected to know the Properties and uses of natural fibres, spinning and yarns in textile industry.

**UNIT-I**

Textile fiber – Definition – Properties of textile fiber – classification of fiber. Brief study and important properties of cotton, silk, wool rayon and polyester best fibers – Influences of fiber properties on fabric characteristics (6L)

**UNIT-II**

Yarn definition, Classification, types (6L)

**UNIT-III**

Weave – definition, Classification. Study on basic weaves. (6L)

**UNIT-IV**

Fashion – Style – Fad Definition – Sources of Fashion – Terms related to Fashion Industry – Boutique, Collection, Classic Chic Fashion Shows, Fashion Trends and High Fashion. (6L)

**UNIT-V**

Role of designer – Researching the market. Design process, sample production. Sources of design inspiration. Types of designer – High fashion designer, Moderate designer, Stylist and freelance designer. (6L)

(Total:30L)

**Semester V - Core**

**APPAREL COSTING**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding Principles of costing and Elements of costing and orients the learners in the field of clothing industry. The learners are expected to know the Cost estimation , Cost of product development in garment industry.

**UNIT – I**

**Principles of costing** – requirement of good costing system – cost unit- types of cost – Fixed cost – Variable cost – Semi variable cost – Conversion cost – Replacement cost – Differential cost – Imputed cost – Sunk cost – Research cost – Development cost – Policy cost – Shutdown cost. **(14L)**

**UNIT – II**

**Elements of cost** – Direct material cost – Direct expenses – Direct wages – Indirect material cost – Indirect expenses – Indirect labour overheads – Production overhead – Administrative overhead – selling overhead – Distribution overhead – Work cost – Cost of production – Total cost. **(11L)**

**UNIT – III**

**Cost estimation** of yarn, fabric and components, dyeing, printing and finishing. Cost estimation for cutting, stitching, checking, packing, forwarding, shipping and insurance. **(12L)**

**UNIT – IV**

**Cost of product development.** Analysis of Design cost – profit design – product profitability. Function of cost control – Apparel manufacturing cost categories – sales cost control – purchasing cost control – production cost control. **(13L)**

**UNIT – V**

**Costing of various garments** – Children’s wear, Women’s wear, Men’s wear. **(10L)**  
**(Total: 60L)**

Reference:

1. Apparel Manufacturing Analysis – Solinger Jacob
2. Production Costing – Khanna Publications
3. Development Banks and Enterprises
4. Fashion Design and product Development – Harold Carr/ John

**Semester V - Core**

**HOME TEXTILE**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of furnishing materials and orients the learners in the field of home textile .The learners are expected to know the Floor coverings, Living room furnishing and doors and windows of textile industry.

**UNIT – I:Different types of furnishing materials:**

Introduction to home textiles, definition, types of home textiles, factors influencing selection of home textiles, recent trends in home textiles. (13L)

**UNIT – II:Floor coverings:**

Floor and wall coverings – definition, types of floor covering – hard, soft and resilient floor coverings and uses and care and maintenance of floor coverings. Wall covering – definition, uses, care and maintenance of wall coverings. (12L)

**UNIT – III:Doors and Windows:**

Door and window treatments – definition and parts of door and windows, curtains and draperies – definition and materials used for curtains and draperies –swags. Accessories – rods hook, rails, racks, curtain tape pins. (12L)

**UNIT – IV: Living room furnishing:**

Soft furnishings for living and bedlinen.. Introduction to living and bedroom linens, types – sofa, sofa covers, wall hangings, cushion, cushion covers, upholsteries, bolster and bolster covers, bed sheets, covers, blankets, blankets covers, comfort and comfort covers, bed spreads, mattress and mattress covers, pillow and pillow covers, pads, uses and care. (12L)

**UNIT – V:Kitchen and Table Linens:**

Soft furnishings for kitchen and dining , types of kitchen linens-kitchen towel, aprons, dish cloth, fridge, grinder and mixie covers, mittens, fridge holders – their uses and care. Types of dining –table mat, dish/pot holders, cutlery holder, fruit baskets, hand towels – uses and care.Bathroom linens – types, uses and care. (11L)

**(Total : 60L)**

**Reference :**

1. Jay Diamond, Ellen Diamond – Fashion Apparel Accessories and Home Furnishings.
2. PremavathySeetharaman, Praveen Pannu – Interior Design and Decoration.
3. DurgaDelukar, House hold Textiles and laundry work.

**MSU/2017-18/UG-Colleges/Part-III(B.Sc. Fashion Designing and Apparel Making)**

**Semester V - Core**

**CARE AND MAINTENANCE OF TEXTILES**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding care and maintenance of textiles and orients the learners in the field of clothing industry. The learners are expected to know the laundry soaps, Laundry equipment and dry cleaning in textile industry.

**UNIT- I**

**Types of Water-** Hard and soft water. Hardness of water - Temporary and permanent hardness. Problems caused by hard water. Methods of softening water. Care and labeling. **(13L)**

**UNIT-II**

**Soaps and Detergents** - Definition, Manufacturing process, Properties and their cleansing action. Indigenous cleaning agents like Rita nut, Shikkakai and Bran. Dry cleaning – Using Absorbents, using grease solvents. **(12L)**

**UNIT-III**

**Stiffening agents**-Natural and commercial starches. Bleaching agents, Bluing agents. Optical brighteners. Additional laundering agents-Acidic, Alkaline and Others. Stain Removal. **(12L)**

**UNIT-IV**

**Laundry equipment** – for storage, for steeping and washing – wash board, suction washer, wash boiler, washing machine. Drying equipment – outdoor and indoor types. Irons and ironing board – types of iron (box, flat, automatic, steam iron) . ironing board – different types . **(13L)**

**UNIT – V**

**Principles of washing** – Suction washing, washing by kneading, rubbing, scrubbing and squeezing, washing by machine – process details and machine details. Laundering of different fabrics – cotton, linen, woolen, silk, rayon, nylon, and coloured fabrics. Special types of laundry – water proof coats, silk ties, leather goods, furs and laces. **(10L)**

**REFERENCES:**

**(Total:60L)**

1. Household Textiles and Laundry Work – DURGA DELUKAR.
2. Fundamentals of Textiles and Their Care – DANTYAGI.S.
3. Shenai V.A. “Technology of Textile Processing” Vol III, V, VII & VIII – Sevlé publication Mumbai 1981.
4. Lewis D.N. “Wool Dyeing” SDC Publ. England 1990



**Semester V - Core practical - V**

**L T P C**  
**0 0 4 2**

**Designing and Constructing Men's wear**

**UNIT – I**

Designing and drafting of shirts

1. Slack Shirt : Features
  - (A) Open Collar
  - (B) Patch Pocket
  
2. T – Shirt : Features
  - (A) Front Half open – Zip Attached
  
3. Full Sleeve : Feature
  - (A) Open Collar
  - (B) Patch Packet
  - (C) Full Sleeve with cuff

**UNIT – II**

1. Pleated Trousers : Features
  - (A) Pleats in Front
  - (B) Darts At Back
  - (C) Side Pockets
  - (D) Fly with Buttons or Zip
  - (E) Belt with Adjustable strap.
  
2. Bell Bottom : Features
  - (A) Bell Bottom
  
3. Narrow Bottom : Features
  - (A) Narrow Bottom
  - (B) Pleats
  - (C) Hip Pockets

**UNIT – III**

Designing and Drafting Kurates

1. Kalidar – Kurta : Features
  - (A) Kalipiece
  - (B) Side Pocket
  - (C) Stand Collar

(D) Half Open

2. Nehru Kurta : Features
- (A) Half Open
  - (B) Round Neck
  - (C) With or without Pocket
  - (D) Full Sleeve

## UNIT – IV

Designing and Drafting Jeans and Pyjama

1. Jeans : Features
- (A) Tight Fitting
  - (B) Jeans Cut
  - (C) Pockets
2. Pajamas : Features
- (A) Elastic or Tape Attached Waist
  - (B) Fly

## UNIT – V

Designing and Drafting Single Breast coat and Night Dress

1. Single Breast Coat : Features
- (A) Coat Collar
  - (B) Coat Sleeves
  - (C) Pocket
2. Night Dress : Features
- (A) Round Neck or Collar Attached
  - (B) Overlap Front
  - (C) Tap Attached

## Reference:

1. Scientific Grament Quality “by K. M. Hedge & Sons Plot No. 43, Somuwar pet, Poona – 411011.
2. “Easy Cutting” By Juvkar Commercial Tailors Corporation Pvt. Ltd., 166, Dr. Ambedkar Road, Dardar.
3. “Commercial System of Cutting” By Juvkar Commercial Tailors Corporation Pvt. Ltd., 166, Dr. Ambedkar Road, Dardar.
4. “Zerapkar System of Cutting by K. R. Zreapkarnavneet Pub Ltd. Mumbai / Ahmedabad /Nagpur.
5. “Dress Making” by SmtThangamSubramaniam, Bombay Tailoring & Embroidery college, 32, North Part St, Ambatur, Chennai.

**Semester V - Major Elective**

**TECHNICAL TEXTILES**

**L T P C**  
**4 0 0 4**

**Preamble:** This course facilitates an understanding technical textiles and orients the learners in the field of textile industry. The learners are expected to know the medical textiles, geo textiles and protective textiles in garment industry.

**UNIT – I**

**Technical Textiles** – Definition and Scope. Categories of Technical Textiles (12L)

**UNIT – II**

**Medical Textiles** – Classification. Fibres used and their properties required. Medical textile Products – Properties, functions. (12L)

**UNIT – III**

**Geo textiles** – Definition, Fibers used in geo textiles – requirement of fibers. Functions of Geo Textiles – separation, Filtration, Drainage, Reinforcement. (13L)

**UNIT - IV**

**Textiles for automotive industry.** Suitable fibers for automotive industry  
Safety devices – Airbags – Materials used- types of fabric – Seat belts – Types, Fabrics used. (11L)

**UNIT - V**

**Brief study on Protective textiles** – Bullet Proof fabrics – fire retarding fabrics- high temperature fabrics – High visibility clothing. Fibers used and Properties of fabrics, smart textiles and intelligent textiles. (12L)

**Reference:** (Total: 60L)

1. The design of Textiles for Industrial Application – P.W.Harrison
2. Protective Clothing – Bajaj. P. And Sengupta A.K
3. Textiles : Fibre to fabric – Corbmann. B.P.
4. Performance of Protective Clothing – Johnson. J.S. and Mansdork. S.Z.

**Semester VI - Core**

**TEXTILE TESTING AND QUALITY CONTROL**

**L T P C**  
**4 0 0 4**

**Preamble:** This course facilitates an understanding of textile and quality control and identification of textile fibre and orients the learners in the field of textile industry. The learners are expected to know the fibre analysis, yarn analysis and fabric analysis in textile industry.

**UNIT – I**

Introduction to Textile Testing and Quality Control – Definition, Importance of Textile testing and quality control, Routine tests performed in Textile Industry. **(14L)**

**UNIT – II**

**FIBRE ANALYSIS:** Identification of Textile Fibre – Burning, Solvent, Longitudinal and Cross sectional view of Cotton, Wool, Polyester, Nylon, Acrylic fibres. Cotton fibre length, strength-single & bundle strength - Fibre fineness. **(12L)**

**UNIT – III**

**YARN ANALYSIS:** Yarn numbering, wales, courses, density, evenness Yarn strength, Twist and crimp. Colour fastness tests in Textiles – Crocking, Perspiration, Sunlight, Laundering. **(11L)**

**UNIT – IV**

**FABRIC ANALYSIS:** Length, Width, Bow, Skewness, Weight, Thickness, Breaking Strength, Abrasion Resistance, Crease Recovery, Stiffness of fabrics and drapability. **(12L)**

**UNIT – V**

Additional test for fibres and Yarn –Microscope, Weight method, Air flow method, Wet strength and elongation of filament yarn, Knot strength, Loop strength for filament yarn, Crimp. **(11L)**

**Reference :**

**(Total:60L)**

1. Principles of Textile Testing – BOOTH J.E.
2. Technology of Textile Properties –MANJORCE. A.TAYLOR.
3. Textile Testing and Quality Control – GROUER AND

**Semester VI -Core**

**APPAREL EXPORT TRADE DOCUMENTATION**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of export trade and orients the learners in the field of marketing .The learners are expected to know globalization features ,export promotion and institutional finance in apparel industry.

**UNIT-I**

Export marketing of apparel, Global seen, Prospects for Indian apparel in overseas market.  
**(14L)**

**UNIT-II**

A.E.P.C.'s role in the administration of export entitlement policy export promotional activities of A.E.P.C  
**(11L)**

**UNIT-III**

Facilities available for garment exporters  
Cash compensatory support  
Duty drawback  
**(12L)**

**UNIT-IV**

Export finance through banks  
Export credit Guarantee Corporation  
Export- Import bank.  
**(13L)**

**UNIT-V**

Marketing - Market development assistance  
100% Export Oriented scheme of the government of India  
Free trade zone.  
**(10L)**

**Reference:**

**(Total:60L)**

1. Effective Export Marketing of Apparel – Darlie O. Koshy.
2. Export Marketing – A practical guide to exporters – S. Sivaramu.

**Semester VI - Core**

**CLOTHING CARE AND WARDROBE PLANING**

**L T P C**

**4 0 0 4**

**UNIT - I**

Classification and introduction to laundry processes (2) -(i) Wet and (ii) dry cleaning - Materials equipments used in laundry. (14 L)

**UNIT – II**

Bleaches – Classification, commercial products, application of bleaches to various fiber and fabric. (11L)

**UNIT – III**

Wardrobe planning and factors to be considered while selecting clothes for different age groups (men and women) (12L)

**UNIT – IV**

Additives used in laundry – optical brighteners: bleaching agents vs. fluorescent whiteners.(13L)

**UNIT – V**

Preservation and storage – Apparel and household linen.  
Disinfections of clothes. (10L)

Reference; (Total :60L)

1. DulkarDurga (1976): Household Textiles and laundry work, Delhi Atmaram and sons.
2. Alexander, R. R (1977) : Textiles products selection, use and care Boston Houghton Miffin Co.
3. Joseph Marjory (1981) : Introductory Textile Science, New York, Holt, Rinehart and Winston.

**Semester VI - Core**

**APPAREL PRODUCTION AND QUALITY MANAGEMENT**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of structure and sectors of clothing industry and orients the learners in the field of clothing industry. The learners are expected to know the production systems, Production planning and control of raw material in garment industry.

**UNIT-I**

Quality definition – Quality and its necessity . Introduction – Inspection its importance- functions of inspection – systems of inspection – types of inspection – hundred percent inspection – sampling inspection – comparison of 100% inspection and sampling inspection. **(14L)**

**UNIT-I**

Quality control in Pattern Making, Grading, Marking, Stitching and Production Analysis – Co coordinating department activities – Distribution of tickets and Maintenance of records – Establishing Merchandising standards. The quality control of trims and fasteners, sewing thread and accessories. **(11L)**

**UNIT-III**

Management: Meaning and definition, Functions and Principles of Management – Planning, organizing, staffing, directing and controlling, Production and productivity **.( 12L)**

**UNIT-IV**

Human resource management: Objectives – Functions and principles of HRD. Recruitment / Training of Supervisors and Executives. **(13L)**

**UNIT –V**

- a. Quality standards, SQC – Control charts – Sampling – its importance and use of sampling techniques. ISO 9000, ISO 14000. Total quality management, quality circles.
- b. Marketing channels, Advertising, Sales promotion, Material management – meaning and importance **(10L)**

Reference :

**(Total:60L)**

- 1. Apparel Manufacturing Handbook – Jacob Solinger.
- 2. Modern production /Operations, Management – Elwoods Buffa and Rakesh
- 3. Industrial Engineering and Management – O.P..Khanna

**Semester VI - Core practical - VI**

**L T P C  
0 0 4 2**

**TEXTILE TESTING & QUALITY CONTROL**

1. Identification of fibre

- Fibre length

2. Identification of yarn

- Yarn count (Pick glass & Beesley balance)
- Yarn twist

3. Identification of fabric

- Thickness testing
- Stiffness testing
- Abrasion testing
- Drape testing
- Crease recovery
- Color fastness – laundry, abrasion (wet, dry ), sunlight



**Semester VI - Major Elective**

**FASHION PORTFOLIO**

**L T P C**

**4 0 0 4**

**Preamble:** This course facilitates an understanding of portfolio presentation and orients the learners in the field of fashion .The learners are expected to know the concept of portfolio development in fashion industry.

**UNIT –I:Concept of Portfolio Development:**

Concept of Portfolio Development – Environment (Natural Factors), Season, Colour, Culture, Fabric design, Occasion, Presentation Technique. (14L)

**UNIT –II**

Study on Mood board, fabric Board, Theme Board, and Story Board (11L)

**UNIT –III**

**Portfolio Presentation of Kid’s Wear**

Mood board – Colour Paletter – Customer Profile – fabric development Chart – Design Development Chart – Specification Sheet. (12L)

**UNIT –IV**

**Portfolio Presentation of Women’s Wear**

Mood board – Colour Paletter – Customer Profile – fabric development Chart – Design Development Chart – Specification Sheet. (13L)

**UNIT –V**

**Portfolio Presentation of Men’s Wear**

Mood board – Colour Paletter – Customer Profile – fabric development Chart – Design Development Chart – Specification Sheet. (10L)

**(Total:60L)**

**Reference:**

1. Jenny Devis – A Complete Guide to Fashion designing, Abishek, Publications, 2007