

14CDU01 FIBER AND YARN MANUFACTURING SEM- I

OBJECTIVE: To study the basic fiber and yarn process.

UNIT – I TEXTILE FIBERS (9)

Introduction to Textile Fibers – Classification of Textile Fibers: Natural fibres – Cotton – Jute – Wool – Silk Fibers – **Manufacturing Process** – Properties of Fibers – Uses of the above fibers.

UNIT – II REGENERATED FIBRES (8)

Regenerated Cellulose fiber – Viscose, Acetate Rayon – Manufacturing Process – Properties of fibers – Uses of the above fibers. Regenerated Protein Fibers. Bicomponent fibres, Miscellaneous fibres.

UNIT – III SYNTHETIC FIBERS (9)

Man-Made fiber – Type of Polymerization Reaction – Wet, Dry, Melt Spinning – Nylon fiber – Polyester fiber – Acrylic fiber – Manufacturing Process – Properties of fibers – Uses of the above fibers – Texturizing – It's Uses.

UNIT – IV SPINNING PREPARATORY (10)

Ginning – Objectives – Types and Working Principle – Mixing and Blending – Blow Room – Objectives of Blow Room – Carding – Objectives – Passage of Material – Drawing – Objectives – Passage – Drafting – Combing- **Preparatory for combing- Passage – Combing Machine.**

UNIT – V SPINNING (9)

Roving – Passage of Material through Simplex Machine – Spinning – Passage – Drafting – Rotor Spinning Machine – Assembly winder – Doubling – Wet and Dry- TFO – Fancy Yarns – **Sewing threads – Manufacturing process– Yarn Faults – Causes and Remedies(Self Study).**

TOTAL 45 HRS

TEXT BOOK:

1. Bernard P. Corbman, Textiles Fiber to Fabric, 6th edition, Mc. Graw Hill International Editions, New York, 1983, 1996
2. S.P.Mishra, A Text Book of Fiber Science and Technology, New Age International (P) Ltd, New Delhi, 2005

REFERENCE:

1. Susheela Dantiyagi, Fundamentals of Textiles and their Care, Orient Longman Ltd, New Delhi, 5th edition, 1998
2. A.V. Mani, Spun Yarn Technology, Vol.I,II,III, Saravana Publications Co. Ltd, 1985
3. W.G. Klein, The Technology of Short Staple Spinning, Textile Institute, Manchester, 1988
4. William Scott Taggart, Cotton Spinning, Universal Book Corporation, 1996

5. Miles Collins, Woolen and Worsted Spinning, Abhishek Publication, Chandigarh-17, 2002
6. Parul Bhatnagar, Elementary Textile, Abhishek Publication, Chandigarh, 2002
7. D. Chakravarthy, P.N.Pandy, Silk Worm Crops, Kurl Bhushan Nangia, APH Publishing Corporation, 2005.
8. S.Jayaprakasam, R. Gopalakrishan, V. Kasinathan, Fiber Science and Technology, S.S.M.I.I.T staff and students Co. operative stores Ltd, Komarapalayam, June 1997
9. K.B.Sagadevan, K.S.Shyam Babu, Fiber Science and Technology, A Complete and Comprehensive and a Perfect Finest Blend of Text Book and Guide, The Director of Technical Education, Tamil Nadu, Prepared for 1998 – 1999 Batch Onwards
10. William & Murphy, Elements of fibre science, 1st edition, Abishek publications, Chandigarh, 2003.
11. R.Jeffries, Bicomponent fibres, 1st edition, 1971, Wood head publishing limited, 2004.
12. NIIR Board, The complete Technology book on Textile processing with effluents treatment, Asia pacific of industrial research, National institute of industrial research, Newdelhi, India.

OBJECTIVE: To study the basic methods of making patterns and construction.

UNIT – I PATTERN MAKING (9)

Pattern Making – Method of Pattern Making Drafting - Measurement – Body Measurement, Allowances for Children, Women, and Men’s Garments, Types of Paper Pattern – Principles of Pattern Drafting – Steps in Children and Adults Bodice and Sleeve Patterns.

UNIT – II DRAPING (9)

Draping – Importance of Draping – The Dress Form – Draping Steps for Basic Bodice – Basic Skirt – Gathered Skirt with Yoke – Pants. Flat Pattern Technique- Pattern Alterations — Computerized Pattern Making.

UNIT – III LAYOUT (8)

Pattern Layout – Rules in Pattern Layout – Common Methods for Laying the Pattern – Layout for Asymmetrical Designs, Bold, Striped, Checked and Wavy Design – Economy of Fabrics in Placing Patterns .

UNIT – IV GRADING& FIT (10)

Fitting – Definition – Principles for a Good Fit – Causes for a Poor Fit – Solving Fitting Problems in Various Garments. Grading – Definition – Principles of Grading – Basic Grading of Bodice, Skirt, Pants, Sleeves and Collar – Grading of different Men’s, Women and Children’s Apparels.(self study)

UNIT – V FABRIC SELECTION (9)

Selection of Fabric – Factors to be considered in Selection. Grain – Types of Grain – Importance of Grain in Fabric Cutting and sGarment Construction – Methods of Straightening Fabric Ends and Fabric Grain – Stitches – Clasification, Dress Making Methods – Tailor Made, Ready Made, Merits and Demerits of childrens and adults wear.

TOTAL 45 HRS

TEXT BOOK:

1. Practical Clothing Construction. Part I & Part II – Mary Mathews, Chennai (1985).
2. Zarapkar System of Cutting by K.R. Zarapkar Navneet Publications INDIA Ltd., (2005).

REFERENCE:

1. Grading for Fashion Industry by J.Patrick Taylor, M.Martin, Shobannational instuite of public co-operation, 1999.
2. Fundamentals and Principles of Pattern Making for Women by Cartis, Irving.E, Black well publications, New Delhi (2004).
3. Professional Pattern Grading for Women’s, Men’s and Children’s Apparel by Greey Cooklin, Black well publications, New Delhi (2004).
4. Grading for fashion Industry, by M.M.Shoben, NIFT, New Delhi (1999).

14CDU03 BASICS OF APPAREL CONSTRUCTION-I SEM – I
PRACTICAL

OBJECTIVE: To study and prepare the basic samples for apparel construction.

1. (a) Preparation of Samples for Temporary Hand Stitches (Even, Uneven, Diagonal, Slip Basting)
 (b)Preparation of Samples for Permanent Hand Stitches (Running, Back, Run and Back, Hemming, Slip, Over - Casting, Over Handing, Whipping)
2. (a)Preparation of Samples for Seams (Plain, Single Top Stitch, Double Top Stitch, Welt, Lapped, Slot, French, Mantua Makers, Flat fell - Machine & Hemmed, Piped and Corded Seam.)
 (b)Preparation of Samples for Seam Finish(Pinked, Double Stitch, Edge Stitch, Herring Bone, Over Cast, Bound Seam edge finish).
3. Preparation of Samples for Fullness (Darts, Tucks, Pleats, Godets, Gathers and Shirris, Frills and Ruffles).
4. Preparation of Samples for Faced Necklines (Bias, Shaped and Decorative)
5. Preparation of Samples for Binding Necklines(Bias and French)
6. Preparation of Samples for Pockets(Patch Pocket, Welt / Bound Pocket, Set- in Pocket / Side Seam Pocket)
7. Preparation of Samples for Plackets and Openings(One Piece or Continuous Bound Placket, Two Piece or Faced and Bound Placket, Zipper Placket – Slot & Lapped, Tailor Placket / Box Pleat Placket)
8. Preparation of Samples Fasteners (Hook and eye (Thread and Metal) ,Press Button, Velcro, Fancy Button , Shirt Button, Button hole, Link / Kurta Buttons).

TOTAL 72 HRS

**14CDU04 CONCEPTS OF FASHION DESIGNING
PRACTICAL**

SEM-II

OBJECTIVE: To study the fundamentals of fashion concept

1. Prepare the following Charts:
 - a. Prang colour chart
 - b. Value chart
 - c. Intensity chart
2. Illustrate the Colour Harmony in Dress Design
 - a. Monochromatic colour harmony
 - b. Analogous colour harmony
 - c. Complimentary colour harmony
 - d. Double Complimentary colour harmony
 - e. Split Complimentary colour harmony
 - f. Triad colour harmony
3. Illustrate garment designs for the Elements of Design
 - a. Line
 - b. Colour
 - c. Texture
 - d. Shape or Form
 - e. Size
4. Illustrate garment designs for the Principles of Design
 - a. Types of design
 - b. Balance in dress
 - c. Harmony in dress
 - d. Emphasis in dress
 - e. Proportion in dress
 - f. Rhythm in dress

1. Application of colour and Principles of design in dress
 - a. Harmony through colour
 - b. Emphasis through colour
 - c. Proportion through colour
 - d. Rhythm through colour
 - e. Balance through colour

2. Designing dresses for figure irregularities – becoming and unbecoming
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, prominent chin and jaw , prominent forehead.

TOTAL 36 HRS

14CDU06 KNITTED FABRIC MANUFACTURE**SEM-II****OBJECTIVE:** To study about the knitted fabric and structure.**UNIT –I KNITTING****(7)**

Introduction to Knitting– Classification of Knitting– Comparison of Weaving and Knitting – Comparison of Warp and Weft Knitting– Important Terms in Knitting – Coarse – Wales – Gauge – Face Loop – Back Loop – Loop Length.

UNIT – II ELEMENTS OF KNITTING**(10)**

Passage of Single Jersey Circular Weft Knitting Machine – Element of Knitting Machine – Needle – Sinker – Cam – Feeder – Single Jersey, Double Jersey, Rib Knit Structure- Inter Lock Knit Structure – Purl Knit Structure – Knit Stitch, Tuck Stitch, Float Stitch.

UNIT –III KNITTING MACHINES**(9)**

Knitting Machines – Jacquard Knitting Machine – **Scope of Computerized Jacquard Knitting Machine** – Knitted Fabric Defects – Causes and Remedies (Self study).

UNIT – IV FLAT KNITTING**(10)**

Working **Principles of Flat Knitting Machine** – flat weft knitting- passage of material through flat weft knitting, Flat Bed Pearl Knitting, Flat knitting Basic structures- Cardigan, Racked Rib and Cable stitch -Fabric Quality Control

UNIT – V WARP KNITTING**(9)**

Principles of Warp Knitting: **Important Features- Different Types- Knitting Elements- Knitting Actions-Tricot, Rachel, Milanese** – Standard Structures – Design Development. Seamless garments

TOTAL 45 HRS**TEXT BOOK:**

1. Anbumani, Knitting Manufacture Technology, New Age International, Chennai, (2006)
2. Knitting and Apparel Technology, S.S.M.I.T Co-operative Society

REFERENCE:

1. D.B.Ajgaonkar, Knitting Technology, Universal Publishing Corp, Bombay, 1998
2. Samuel.R, Flat Knitting, Meisenbach Bamberg, Germany,1991
3. Debby Robinson, The Knitting Encyclopedia of Knitting Technology, The Editing published, (1989).
4. David J. Spencer, Knitting Technology, Woodhead Publishing Ltd., Cambridge England, Third edition, (2001).
5. Dr. S. Raz, Warp Knitting Production, Velag Melliand Textile Berichte Gmbh, Heidelberg, 1987.
6. Chandrasekara Iyer, Bernd Mammel and Wolfgang Schach, Circular Knitting, Meisenbach Bamberg (1992).

14CDU07 FABRIC STRUCTURE ANALYSIS PRACTICAL**SEM-II****OBJECTIVES:** To analyse the woven and knit fabrics.**I WOVEN FABRIC**

1. Analyse the woven sample-Plain weave
2. Analyse the woven sample-Twill weave
3. Analyse the woven sample-Satin weave
4. Analyse the woven sample-Huckaback weave
5. Analyse the woven sample-Extra Warp weave
6. Analyse the woven sample-Honey Comb weave
7. Analyse the woven sample-Terry weave

- Warp density(Ends Per Inch)
- Weft density (Picks Per Inch)
- Count
- Crimp Percentage
- Cover Factor
- Area density (GSM-Weight of Sample/sq.m)
- Design, Draft and Peg Plan

II KNITTED FABRIC

3. Analyses the knit sample- Single Jersey
4. Analyses the knit sample- Rib
5. Analyses the knit sample- Interlock
6. Analyses the knit sample- Jacquard
 - Grams per sq.m
 - Count
 - Structure
 - Coarse and Wales per inch
 - Tightness factor

III SAMPLE COLLECTION (Woven and knitted)**TOTAL 36 HRS**

14CDU08 BASICS OF APPAREL CONSTRUCTION-II SEM-II
PRACTICAL

OBJECTIVE: To study and prepare samples for apparels

1. Preparation of Samples Set – in Sleeves: Plain, Puff, Bishop, Circular, Leg –o- Mutton Sleeves.
2. Preparation of Samples Sleeveless Styles: Square, Cap, Long / Short Magyar Sleeves.
3. Preparation of Samples Sleeves Combined with Bodice: Kimono, Dolmon, Batwing, Raglon Sleeves.
4. Preparation of Samples Collars : Flat Collar – Peter Pan collar, Cape, Puritan, Scalloped, Chinese, Turtle Neck, Shawl, St. line Full roll Convertible collar.
5. Preparation of Samples Yokes: Simple, Yoke with Fullness, Yoke Releasing Fullness, Midriff (Yoke Supporting Fullness), Panel and Partial Yoke.
6. Preparation of Samples Skirts: Plain, Yoke Skirt, Yoke with Fullness, Yoke Releasing Fullness, Circular Skirt, Layered Skirt.

TOTAL 48 HRS

14CDU09**BASIC FASHION DESIGNING
PRACTICAL****SEM – I****OBJECTIVES:** To study the basics of designing.

1. Colour Wheel, Colour Medias- Graphite pencil, Colour pencil, Crayon, Water colours, Poster colours, Fabric colours.
2. Draw and shade the Colour Theories.
3. Draw variations for Sleeves
4. Draw variations for Cuffs
5. Draw variations for Yokes
6. Draw variations for Fullness
7. Draw variations for Pockets
8. Draw variations for Skirts –For The Above Use Various Techniques.

TOTAL 48 HRS

14CDU10 TEXTILE WET PROCESSING SEM- III

OBJECTIVE: To study the basic processing sequence in apparel industry.

UNIT – I PREPRATORY PROCESS (9)

Introduction to quality of water used in textile industry-Preparation: Impurities Present in Gray Cotton Fabric – Singeing – Singeing Machine – Desizing – Continuous Enzyme Desizing Process – Scouring – Bleaching – Type of Bleaching – J-Box.

UNIT – II**DYEING (9)**

Dyeing – Classification of Dyes – Direct, Acid, Basic, Reactive, Vat, Disperse, Eco Friendly Dyes, Tie and Dye – Dyeing Defects and remedies. Type of Dyeing Machines – Hank, Beam, Jigger, Winch, Jet, Soft Flow Dyeing Machines, Colour Matching Cabinet, Pantone Colour, Delta Value, Lab Dip..

UNIT – III PRINTING (8)

Printing: Introduction – Different Types of Printing – Screen, Roller, Rotary-different styles of – Discharge, Resist, and Pigment – Curing. Printing Defects and remedies.

UNIT – IV FINISHING (10)

Finishing: Classification of finishing- mechanical and chemical finishing- Enzymes, wrinkle free, water repellent, water proof finishing, bio polishing, bio washing, stone wash, acid wash, flame retardant finishes, Mildew finish -Mercerizing – Methods of mercerizing – Damping and Calendaring. Finishing Defects and remedies.

UNIT –V QUALITY CONTROL (9)

Quality control and pollution control: Importance-Need of quality control-Importance and need of environment protection-Air & Water pollution – Effluent treatment plant, Eco-friendly processing (Self study). Causes and remedies of processing.

TOTAL 45 HRS

TEXT BOOK

1. Fabric Finishing by Dr. Nalankallai, new age International (2000).
2. Technology of Textile Processing, Vol 3, 4, 6, 10. by Shenai V.A, Sevak Publications, Mumbai (1996).

REFERENCE:

1. An Introduction to Textile Printing by W. Clarke, Woodhead Publishing Limited, Cambridge England (2004).
2. An Introduction to Textile Finishing by Marsh.J.T (1999)
3. Fundamentals of Textiles and their Care by Susheela Dantiyagi. (V edition) (2000).

14CDU11 APPAREL MACHINERY & EQUIPMENT SEM –III

OBJECTIVE: To study the basic machineries used in apparel industry.

UNIT – I SPREADING AND CUTTING (10)

Spreading – Spreading Methods, Equipment and Tools, Types of Spreads and its Quality – Requirement - Machinery Equipment Marking Methods – Positioning Marking – Types of Markers – Notches – Drills and Computer Aided Markers. **Cutting Technology – Definition, Function, Types of Spread and its Quality, Cutting Equipment** and Tools, Straight Knife Cutting Machine, Rotary Cutting Machine, Band Knife Cutting Machine, Die Cutters, Cutting Drills, Computerized Cutting Machines. Pin Table.

UNIT – II BASIC SEWING (8)

Sewing Machines – Parts and Functions of Single & Double Needle Machine, Flat lock Machine, Over lock Machine, Three, Four, Five Thread Machines– Special Attachments. Problems in Sewing Machines and maintenance

UNIT – III SPECIALITY SEWING (9)

Fashion Maker, Bar Tacking, Button hole Making, Button Fixing, Blind Stitching Machine, Fabric Examining Machine, Embroidery machines. Feed of the Arm , Flat Lock ,Chain Stitch ,Welt Pocket machine, Faggoting.

UNIT – IV STITCHING MECHANISM (9)

Stitching Mechanism – Needles, Bobbin and Bobbin Cases, Bobbin Winding, Shuttle and Shuttle Hooks, Loops Loop Spreader, Psychology of clothing, Maslows, Pyramid theory, Lining, Interlining, Wadding, Buttons & loop fastening, Seam binding & tape zip fastness – Pressure Regulators – Stitch Length, Times Sequence in Stitch Formation. Types of Machine beds.

UNIT – V PRESSING & PACKING (9)

Pressing – **The Purpose of Pressing** – Categories of Pressing – Means of Pressing – Pressing Equipment and Methods – Pleating – Permanent Press – Garment Folding and Packing. Garment Care and Maintenance – Latest developments in sewing machinery's. (Self Study), Buyer manual.

TOTAL 45 HRS

TEXT BOOK

1. “Apparel manufacturing” Hand book – analysis, principles and practice, by Solingar Jacob , Columbia Boblin media Corp(1988)
2. Industrial engineering in apparel production by V.Ramesh Babu, Woodhead publishing India Pvt Ltd (2012)

REFERENCE:

1. “Materials management in clothing production”, by David J. Tyler (1991)

2. Gerry cooklin Revised by Steven Hayes and John Mc Logline, Introduction to clothing manufacture, Black well science publishing-(2007 Revised).

3. "The Technology of clothing manufacture", by Harold Carr and Barbara Latham, Second edition, Black Well Publishing (1999).

4. "Garment Technology for Fashion Designers", by GerryCooklin Black well publishing (1997).

5. "Introduction to clothing manufacture", by Gerry cooklin Revised by Steven Hayes and John mc logline, Black well science publishing (1998).

14CDU14 TEXTILE WET PROCESSING PRACTICAL SEM-III

OBJECTIVES: To develop dyeing and printing samples

1. Scouring of cotton fabric.
2. Bleaching of cotton fabric using Hydrogen Peroxide.
3. Dyeing the given cotton fabric using- Direct dyes.
4. Dyeing the given cotton fabric using- Vat dyes
5. Dyeing the given cotton fabric using- Reactive dyes
6. Dyeing the given silk fabric using – Acid dyes
7. Dyeing the given polyester fabric using -Disperse dyes
8. Dyeing the given cotton fabric using –Tie & dye techniques.
9. Screen printing on cotton fabric.
10. Stencil printing on cotton fabric.
11. Batik/Block printing on cotton fabric.
12. Color matching the dyed samples with pantone shades.

TOTAL: 36 HRS

14CDU15 PATTERN MAKING & GARMENT SEM- III
CONSTRUCTION PRACTICAL (CHILDREN'S WEAR)

OBJECTIVES: To prepare the pattern and construct the garments.

1. Prepare the pattern and construct the garments for Bib and Bonnet
2. Prepare the pattern and construct the garments for Panty
3. Prepare the pattern and construct the garments for Jabla
4. Prepare the pattern and construct the garments for Layette
5. Prepare the pattern and construct the garments for Sun suit (Button hole)
6. Prepare the pattern and construct the garments for Romper (appliqués)
7. Prepare the pattern and construct the garments for Petticoat
8. Prepare the pattern and construct the garments for A- Line Frock (running / cording / satin)
9. Hand Embroidery - stem, chain, satin, herring bone, french knot, lazy daisy.

TOTAL: 36 HRS

14CDU16 COMPUTER AIDED FASHION DESIGNING SEM – III
PRACTICAL

OBJECTIVES: To design the garments.

An introduction about **Word, Power point and Excel**

1. COREL DRAW

- Designing and Drawing with Various Tools, Logo design
- Garment Design – Children’s, Women’s and Men’s Wear.

2. ADOBE PHOTOSHOP

- Drawing and Designing with Various Tools’ Operations.
- Creating Designs.
- Application of Colours.
- Importing the Silhouette illustrations from Adobe Illustrator.
- Application of Garment Design.
- Evolutions of textile Designs.
- Scanning and morphing of images.

3. ADOBE - PAGE MAKER.

- Designing and Drawing with Various Tools.

4. FLASH& 3-D (Workshop)

- Designing and Drawing with Various Tools.
- Garment Design – Children’s, Women’s and Men’s Wear.

TOTAL: 36 HRS

14CDU17

FASHION ILLUSTRATION

SEM – III

PRACTICAL (KIDS WEAR)

OBJECTIVES: To draw the different wear& country costumes for Kids.

1. Drawing the Head & Neck, The Torso, The Arms & The Hands, The Legs & The Feet.
2. Sketch the Colour Theory Applications – colour combinations for kids garment.
3. Drawing of different head theory (4 ½)
4. Illustrate Costumes of Indus Valley for children
5. Illustrate Costumes of Mayan Civilization for children
6. Illustrate Costumes of Vedic Age for children
7. Illustrate other Pre historic Costumes for children
8. Drawings and Developing Illustrations from Photos and Pictures from Magazines.
9. Drawing Garments and Accessories on kids figure.

TOTAL: 36 HRS

14CDU18**INDUSTRIAL TRAINING****SEM-III**

OBJECTIVES: The student has to undergo training in either a woven or a knitted garment industry

@ Sampling Department

@ Knitting, Weaving & Home textile Department

@ Textile Wet Processing (Dyeing & Printing)

@ GMT Department

@ Quality Department

@ Finishing Department

@ Packing Department

@ Designing Department

14CDU19**TEXTILE TESTING****SEM– IV****OBJECTIVE:** To study the basic textile testing methods involved in apparel industry.**UNIT – I FIBRE****(9)**

Introduction to textile testing and quality control - Humidity – Wet and Dry Bulb Hygrometer, Moisture Regain – Moisture Content – Conditioning Oven, **Fiber Tests** – Fiber Length – Bear Sorter – Fibro Graph – Shirley Trash Analyzer – Fiber Strength – Measurement of Strength by Pressley Tester and Stelometer – Fineness of fiber – Fineness Instrument – Maturity.

UNIT–II YARN**(10)**

Yarn Tests- Numbering System – Count – Quadrant Balance – Twist Tester – Count and Twist Relationship – Yarn Strength – Lea Strength – Ballistic Tester – Evenness Tester – Yarn Irregularity, Uster Classimat and Yarn hairiness.

UNIT – III KNITTED FABRIC**(9)**

Knitted Fabric – Loop Length – Course Length – Courses/inch, Wales/inch – GSM – Measurement of Shrinkage – Bursting Strength – Fabric Air Permeability, Air Resistance – Water Permeability. Fastness and its agencies – testing of colour fastness – washing, rubbing, perspiration, dry cleaning bleaching, saliva, seawater, chlorinated water - Bursting strength.

UNIT – IV WOVEN FABRIC**(8)**

Introduction to **Hand Weaving** - Fabric Tests- Fabric Strength – Tensile Strength Tester – Tearing Strength Tester – Crease Recovery – Fabric Stiffness – ISI Pilling – Abrasion Tester – Thickness, Drape –Crimp Tester.

UNIT – V APPAREL**(9)**

Quality – Meaning – Definition – Accepted Quality Level and Accepted Quality Standard – Quality Standards for Sewing Threads and Needles – Quality Standards for Yarn and Fabric. Organizing for Quality Control – Inspection Center: Grey Fabric and Processed Fabric – Accessories Inspection – Quality Control – In Cutting, **Sewing and Packing** – Organization Chart of Production, Sampling Departments – Final Inspection Departments (self study).

TOTAL: 48 HRS**TEXT BOOK:**

1. Textile Testing by P.Angappan and V.Gopalakrishnan, SSM Institute of Textiles, (2000)
2. Principle of Textile Testing by JE Booth, CBS publication Newdelhi, (1996).

REFERENCE:

1. Physical Testing & Quality Control by Slater. K. Vol .23, No1/2/3, Textile Institute, (1993).
2. Apparel Manufacture – Sewn Product Analysis by Ruth Clock & Grace Kunz, Upper Sadale River Publications, New York, (2000).
3. Hand Book of textile testing by E.B.Grorver Wiley Easters University, Delhi, (1980).
4. Encyclopedia of Management – TQM by Samuel K.HO, Crest Publication House (1999)
5. Introduction to Quality Control by Pradeep Mehta, ASQC Quality Press, Marcel Dekker Inc., New York (1992).

14CDU20

**FASHION MERCHANDISING
AND RETAILING**

SEM– IV

OBJECTIVE: To study the merchandising aspects in apparel industry.

UNIT – I FASHION**(10)**

Fashion -Components of Fashion – Silhouette – Texture – Color – Acceptance – Change – Principles of Fashion. The Environment of Fashion: Demographics and Psychographics – Economic Factors – Sociological Factors – Psychological Factors .The Movement of Fashion: The Cycling of Fashion – Stages of the Fashion Cycle – Consumer Buying and the Fashion Cycle – Factor’s Influencing Fashion Movement – Recurring Fashions.

UNIT- II DESIGNERS**(9)**

The Leader of Fashion: Birth of Fashion – The Designer’s Role – Types of Designer’s- **Top 10 Indian Designers and Top 10 International Designers(Self study)** – Insight and Intuition – Source of Design Inspiration – Manufacturers and the Retailer’s Role — Fashion Leaders and Followers. Merchandising Industry and Marketing Activities – Market Center – Industry Trends.

UNIT-III RETAILING**(8)**

Domestic Fashion Market:– Market Weeks – Trade Shows – The Development of Regional Fashion Centers – TrendsOf Italy, Hong Kong ,France ,London, Paris .Fashion Retailing – Types of Retailers of Fashion Merchandise – Fashion Advertising.

UNIT –IV VISUAL MERCHANDISING**(9)**

Visual Merchandising-Window Display-Concept, Types of Display, Display settings- Principles of design- Harmony ,Rhythm, Balance, Emphasis and Proportion applied to Window Display-Exterior of a store- Banners, Outdoor lightings, Planters, Awnings, Windows in Store Front Design, Arcade front, Corner window.

UNIT-V DISPLAY**(9)**

Display Window Construction- Closed back window. Floor, Back of the window, Ceiling, Side walls, Masking, **Open Back windows, Special Windows**- Store Interiors- Columns, Focal points, Fascia, Counters and Display cases, Ledges, Risers, Enclosed Displays, 100 % Traffic Areas.

TOTAL: 48 HRS**TEXT BOOK**

1. Fashion Merchandising and Introduction by Elaine Stone and Jean A. Samples, IV Edition.
2. Visual Merchandising and Display – Martin M Peglar S. V. M, Fairchild Publication, Inc, New York – 2007 V Edition.

REFERENCE:

1. Fashion Marketing by Easey M(ed), Blackwell Science 1994.
2. Merchandising- Theory, Principles and Practice Grace i. Kunz II Edition, Fairchild Publications, Inc. New York. 2005.

OBJECTIVES: To test the fiber, yarn, fabric & garments.

1. Determination of burning property of the fiber using burning test/ Microscope Test
2. Determination of Count, Lea's Strength and CSP Using- Wrap Reel & Lea Tester.
3. Determination of Yarn Appearance and Grade Using- ASTM Board.
4. Determination of Single/ Double Twist Using -Twist Tester.
5. Determination of course length using loop length tester.
6. Determination of Tensile strength using -Tensile tester
7. Determination of bursting strength using- Bursting tester.
8. Determination of Bending Length, Thickness, flexural Rigidity Using- Stiffness Tester.
9. Determination of Abrasion Resistance Using - Abrasion tester
10. Determination of Drape co-Efficient Using – Drape meter
11. Determination of Crease Recovery of fabric Using – Crease Recovery tester
12. Colour fastness to Washing, crocking & Fabric Shrinkage.
13. Determination of tearing strength using- Elmendorf tearing strength tester

TOTAL: 36 HRS

14CDU24 PATTERN MAKING AND GARMENT SEM-IV
CONSTRUCTION PRACTICAL (WOMEN'S WEAR)

OBJECTIVES: To prepare the pattern and construct the garments using traditional embroidery.

1. Prepare the pattern and construct Saree Petticoat
2. Prepare the pattern and construct Blouse
3. Prepare the pattern and construct Middy
4. Prepare the pattern and construct Middy Top
5. Prepare the pattern and construct Night Dress
6. Prepare the pattern and construct Salwar
7. Prepare the pattern and construct Kameez
8. Prepare the pattern and construct Ladies Pant
9. Prepare the pattern and construct Ladies Shirt
10. Prepare the pattern and construct Ghagrah choli

TOTAL: 36 HRS

**14CDU25 COMPUTER AIDED TEXTILE AND GARMENT
DESIGNING PRACTICAL****SEM IV****OBJECTIVES:** To draw the design and pattern making and Grading.

1. Introduction to Design and studio.
2. Learning of different tools .
3. Textile designing
 - Prepare Fabric Design and Print Design with full drop, half drop and quarter drop.
 - Prepare Weave Designing with
 - Prepare Knit Designing
 - Prepare Jacquard Designing
4. Garment Designing
 - Design a Party wear
 - Design a Executive wear
 - Design a Cocktail wear
 - Design a Casual wear
5. Grading of patterns.
6. Marker planning of graded patterns

. TOTAL: 36 HRS

14CDU26 FASHION ILLUSTRATION (WOMEN'S WEAR) SEM – IV**PRACTICAL**

OBJECTIVES: To draw the different wear& country costumes.

1. Drawing Head & Face (Women) from Different Angles.
2. Drawing different head theory(8&10)
3. Body Construction through Stick Figures, Blocking Figures, Gesture Figures.
4. Drawing Clothes on Figures.
5. Drawing Accessories
6. Drawing Garments for Party Wear
7. Drawing Garments for Casual Wear
8. Costumes of Egypt, Greece, Roman and French.
9. American Costume – 18th and 20th Century English Costume. .
10. Drawings and Developing Illustrations from Photos and Pictures from Magazines & Stylized Figures(Women's).

TOTAL: 36 HRS

14CDU27

**APPAREL MARKETING
AND MERCHANDISING**

SEM – V

OBJECTIVES: To learn about the marketing and merchandising.**UNIT – I MARKETING****(8)**

Fashion consumer typologies, maslows hierarchy of needs, 4 P's, **Swot Analysis, marketing research process, the importance of marketing.**

UNIT – II SOURCING AND SUPPLY CHAIN MANAGEMENT**(9)**

Sourcing defined, supply chain management, an historical perception of sourcing, change resulting from supply chain management, benefits of supply chain management.

UNIT – III MARKET STRATEGY**(9)**

Marketing mix – price in fashion, fashion product distribution channels, brand distribution channels. The fashion market size & structure, trends in marketing environment.

UNIT – IV MARKETING RESEARCH**(9)**

Introduction, purpose of market research design, data source, data collection methods, role of marketing research in new product development, fashion forecasting. cost of making.

UNIT – V MERCHANDISING**(10)**

Merchandise, apparel and fashion merchandising – role of merchandiser – type of merchandising – export house – manufacturer – buying house – buying agency – selection of buyers and buying agencies, merchandising corresponding: orders – **handling of orders and dealing with manufacturers – trade fair participation and other methods of sales** promotion in merchandising (self study)

TOTAL: 48 HRS**TEXT BOOK:**

1. Merchandising- Theory, Principles and Practice Grace I. Kunz II Edition, Fairchild Publications, Inc. New York. 2005
2. Fashion Marketing by Easey M(Ed), Blackwell Science 1994.

REFERENCE:

1. Fashion marketing – 3rd edition, Edited by Mike Easey, ISBN – 13:978-1405/39533, Mar 2009.
2. Mastering Fashion marketing – by Tim Jackson and David show, Palgrave Macmillan, 2009
3. Fashion buying and merchandising management- by Tim Jackson and David show, Palgrave Master Series, Palgrave Macmillan.

14CDU28A

TOTAL QUALITY ASSURANCE

SEM – V

OBJECTIVE: To study the marketing and merchandising aspects in apparel industry.

UNIT – I (8)

What is quality-Definition of quality –Importance of Quality –Various factors influencing quality- quality circle -Different Quality concepts-Seven management tools.

UNIT – II (10)

Cost of quality – classification of various costs under cost of quality –cost of failure –cost of appraisal and cost of Preventions –overview of the quality assurance practices –role of quality assurance practices – preproduction procedures.

UNIT – III (9)

ISO 9000 – QA system standards – back ground – Important Standards – ISO 9000 series – elements of ISO 9001:2008, SA8000 – certificate Procedure –internal Quality audits –ISO 1400 – REACH Standard – BSCI Standard.

UNIT – IV (9)

Quality in product Development –Fabric Quality Standards – 4 Point and 10 point system for Assessment – 100% Inspection – Random inspection –AQL.Online inspection Procedures-Bench marking

UNIT-V (9)

Quality TQM – TQM and corporate Strategy Four Pillars of TQM – concept and need of TQM – TQM Guru ideas – TQMEX MODEL –Need and implementations – KAIZEN-seven quality tools

TOTAL: 48 HRS

TEXT BOOKS:

1. Jacob So linger ,” Apparel Manufacturing Hand Book “, Prentice Hall,1993

REFERENCES:

1. Pradip v.Mehta, “ An Introduction of Quality control for the Apparel Industry”.ASQC quality press , Marcel Dekker Inc., New York ,1992
2. Managing Quality in Apparel Industry ,S.K.Bhardwaj & Pradip v Mehta .
Quality is free , Philip Crosby.

14CDU28B HISTORIC COSTUMES AND TEXTILES OF INDIA SEM- V**UNIT-I (9)**

Beginning of Costume, Growth of Dress out of painting, cutting etc..., Study of dyed and printed textiles of India –Bhandhani, patola , ikkat, kalamkari- in all the above types and techniques used. Study of woven textiles of India – Dacca Muslin, Banarasi/ Chanderi brocades, baluchar, himrus and amrus, Kashmir shawls, pochampalli , silk sarees of Kancheepuram.

UNIT-II (9)

Costumes of India – Traditional Costume of different States of India, Tamil Nadu , Kerala , Andhra Pradesh ,Karnataka ,Assam, Orrisa, Bihar, Mizoram, Tripura, Nagaland, W.Bengal, Sikkim

UNIT-III (9)

Traditional Costume of different States of India;
Maharastra, Rajasthan, Haryana, Himachal Pradesh, Uttarpradesh, Jammu and Kashmir, Gujarat, Madhyapradesh.

UNIT-IV (9)

Indian Jewellery – jewelleries used in the period of Indus valley civilization , Mauryan period , Gupta Period , the Pallava and Chola Period ,Symbolic Jewellery of South India, Mughal period. Temple Jewellery of South India, Tribal jewellery
A brief study of gems and precious stones.

UNIT-V (9)

Traditional embroideries of India – Origin ,Embroidery stitches used –embroidery of Kashmir , Phulkari of Punjab ,Gujarat – Kutch and Kathiawar, embroidery of Rajasthan , Kasuti of Karnataka ,Chickenwork of Lucknow, Kantha of Bengal – in all the above – types and colours of fabric /thread.

**TOTAL : 45
Hours**

TEXT BOOKS:

1.The costumes and textiles and India – Jamila Brij Bhushan, D B Taraporevala Sons & Co, Bombay (1958)

REFERENCE:

1. Indian Jewellery – M.L Nigam, Lustre Press Pvt Ltd ,India (1999)
2. Indian Costume –G.H Ghosrye, Popular books Pvt Ltd
3. Costumes of India –Dorris Flyn, Oxford &IBH Publishing Co ,Delhi (1971).
4. Costumes of India and Pakistan – Das S.N , DB Taraporevala Sons and co, Bombay(1956).

14CDU29**PATTERN MAKING & GARMENT
CONSTRUCTION PRACTICAL (MEN'S WEAR)****SEM – V****OBJECTIVES:** To prepare the pattern and construct the garments

1. Prepare the pattern and construct T-Shirt
2. Prepare the pattern and construct Full Sleeve Shirt
3. Prepare the pattern and construct Sharvani
4. Prepare the pattern and construct Nehru Kurtha
5. Prepare the pattern and construct Bermudas
6. Prepare the pattern and construct Trousers
7. Prepare the pattern and construct Polo T shirt (2- 3 buttons)
8. Prepare the pattern and construct Cargo pants
9. Prepare the pattern and construct Boxer shorts
10. Prepare the pattern and construct Night Dress

TOTAL: 48 HRS

14CDU30**HOME FURNISHING
PRACTICAL****SEM – V****OBJECTIVES:** To study about home textiles & prepare samples for living room furnishing

1. Preparing samples for curtain with painting
2. Preparing samples for cushion covers with quilting
3. Preparing samples for wall hangers with mirror work.
4. Preparing samples for pillow covers with basic stitches
5. Preparing samples for table mat with kantha work
6. Preparing samples for hand towel with fancy stitches.
7. Preparing samples for bed spreads with hand printings
8. Preparing samples for mixie and grinder cover.

TOTAL: 48 HRS

14CDU31 FASHION ILLUSTRATION (MEN'S WEAR) SEM – V**PRACTICAL**

OBJECTIVES: To draw the different wear& country costumes.

1. Drawing Head & Face (Men) from Different Angles.
2. Drawing different head theory(8&10)
3. Body Construction through Stick Figures, Blocking Figures, Gesture Figures.
4. Drawing Clothes on Figures.
5. Drawing Accessories
6. Drawing Garments for Party Wear
7. Drawing Garments for Casual Wear
8. Costumes of Egypt, Greece, Roman and French.
9. American Costume – 18th and 20th Century English Costume.
10. Drawings and Developing Illustrations from Photos and Pictures from Magazines & Stylized Figures (Men).

TOTAL: 48 HRS

14CDU32 ACCESSORIES DESIGNING PRACTICAL SEM-VI

OBJECTIVES: Design and making of the following items.

1. Designing of accessory for casual wear
2. Designing of accessory for party wear
3. Designing of accessory for Bridal wear
4. Designing of accessory for cocktail wear
5. Designing of accessory for winter wear
6. Designing of accessory for Indian brides
7. Designing of accessory for Indian grooms

From Glass, Paper, Fabrics, Beads, Threads, Zippers, Buttons, Buckles, Zipper Rings

TOTAL: 48 HRS

14CDU33**INDUSTRIAL TRAINING****SEM-V**

OBJECTIVES: The student has to undergo training in either a woven or a knitted garment

industry

@ Sampling Department

@ Knitting, Weaving & Home textile Department

@ Textile Wet Processing (Dyeing & Printing)

@ GMT Department

@ Quality Department

@ Finishing Department

@ Packing Department:

14NME01

**EXTRA DEPARTMENTAL COURSE
BASICS IN COSTUME DESIGN AND FASHION**

SEM-V

TOTAL: 24 HRS

OBJECTIVE: To study the basics in costume design and fashion.

UNIT I TEXTILE FIBRES

(5)

Introduction to textile fiber – Classification of fiber- Natural – Man made –Properties of fiber
– Uses of the fibers - Sewing Thread – Sequence process of weaving, knitting & Processing.

UNIT II ILLUSTRATION

(5)

Principles of design – Harmony, Proportion, Rhythm, Balance and Emphasis.
Fashion Illustration – Drawing Human Anatomy of a Child, Women, Men

UNIT III PATTERN MAKING AND GARMENT CONSTRUCTION (4)

Pattern Making – Method of Pattern Making – Measurement – Body Measurement for Children and Adults, garment construction .

UNIT IV EMBROIDERY

(5)

Introduction to Embroidery, Types – Hand Embroidery Stitches – Running, Back, Chain, LasyDaisy, Satin.

UNIT V PRINTING AND PAINTING TECHNIQUES

(5)

Colour, Printing and Painting

TEXT BOOKS

- 1 . Bernard P. Corbman, Textile Fiber to Fabric, 6th edition, Mc.Graw Hill International Editions, New York, 1983, 1996.
2. Mary Mathews Part I & II, Practical Clothing Construction, Basic Sewing Processes, Jevve Printers, Chennai, 1985

REFERENCE:

1. Susheela Dantyagi, Fundamentals of Textiles and their Care, Orient Longman Ltd, New Delhi, 5th edition, 1998
2. K.R.Zarapkar, System of Cutting, Navneet Publications (India) Limited, Ahmadabad, 2005 .
3. Kathryn Mc.Kelvel & Janine Munslow, Illustrating Fashion, University Press, Cambridge, 1997.
4. S.Jayaprakasam, R. Gopalakrishan, V. Kasinathan, Fiber Science and Technology, S.S.M.I.I.T staff and students Co. operative stores Ltd, Komarapalayam, June 1997

14CDU34A

CLOTHING CARE

SEM – VI

OBJECTIVES: To study about the basic laundry and maintenance of clothing

UNIT I LAUNDRY EQUIPMENT (8)

Principles of Laundering, Laundry equipment and laundry reagents. Minimum requirements – Availability – Effective arrangement of space and equipment – purchase and Maintenance of equipment.

UNIT II SOAP AND DETERGENTS (9)

Soaps and Detergents –Cleaning action of soap indigenous cleaning agents like Rita met shikakai-green gram –bran solutions. Water – Hard and soft Water- Methods of Softening Water.

UNIT III PHYSIOLOGY &HYGIENE OF MATERIALS &CLOTHING (9)

Methodology in clothing physiology-aerodynamics of clothing-Hydrokinetics of clothing systems-clothing Hygiene.

UNIT IV STIFFENING AGENTS (9)

Stiffening Agents –Natural and Commercial starches – Preparation of starch use, bleaching agents, blueing agents-their application-Optical blues.

UNIT V STAIN REMOVAL AND WASHING (10)

Stain removal , Methods of Washing – Application of Friction – HandFriction,rubbing and scrubbing–application of light pressure, kneading and squeezing suction – washing –use of washing machine ,methods of finishing –damping –ironing –dry cleaning and Storage, Care Labeling.

TOTAL: 48 HRS

TEXT BOOKS

1. Susheela Dantiyagi, Fundamentals of Textiles and their Care, Orient Longman Ltd, New Delhi, 5th edition, 1998
2. Fabric Care by Neomi D'Souza, New Age International Publisher, 1998

REFERENCES:

1. Textile Fabrics & Their Selection, Wingate I.B. Allied Publishers Pvt. Ltd. Madras
2. Fundamentals of Textiles & their Care. Dantiyagi.S. Orient Langnass Ltd. New Delhi 1980.
3. Family Clothing Tate of Glesson John Wiley & Sons .Inc. Illinois Latest Edition.
4. Household textiles and laundry work Durga deulkar, Alma Ram & Sons. Delhi.
5. Physiology & Hygiene of materials & clothing, E.T. Renbourn, Published by Wood head publishing limited, 2004.

14CDU34B**FASHION AND CLOTHING PSYCHOLOGY****SEM- VI****UNIT-I****(9)**

Factors influencing fashion changes –Psychological needs of fashion , Social psychology of Fashion , technological , economical , political ,legal and seasonal influence .role of costume as a status symbol , Personality and dress, cloths as sex appeal, cultural value
Fashion cycles, repetition of fashion .

UNIT-II**(9)**

Fashion evolution – Fashion cycles , Length of cycles , consumer groups in fashion cycles – fashion leaders , fashion innovators, fashion motivation , fashion victim, fashion victims, Fashion followers .Adoption of Fashion – trickle down , trickle up and trickle across theory .Fashion forecasting – market research , evaluating the collection , Fashion services and resources (fashion services ,Colour services ,video services , News letter services, web sites , Directories and references),Design- Historic and ethnic costumes.

UNIT-III**(9)**

Visual merchandising of fashion , types of displays – window displays , interior displays , Elements of display – the merchandise , mannequins and forms , props , signage , lighting Merchandising presentation – tools and techniques- back drop, forms, fixtures .
Fashion show- Definition , planning ,budgeting, location, timings, selection of models, collection ,set design, music , preparing the commentary , rehearsal .

UNIT-IV**(9)**

Understanding Fashion designer – types – classicist, idealist, influenced, realist, thinking poet. Indian Fashion designers –Haute couture – Rohit Khosla, Gitanjal kashyap , hemant Trivedi, J.J Valaya ,James ferrerira, Ritu Kumar ,Rohit bal, Tarun Tahiliani Minimalists- Himanshu and sonali sattar , sangeethe Chopra, Wendell Rodricks. Village India- Bhamini Subramaniam, Anju modi, Indiar, Broker, Madhu Jain. Studio line – Bhairavi jaikishan ,Kishan Mehta ,Ravi Bajaj ,Ritu beri, Rockys.

UNIT-V**(9)**

World fashion centers –France, Italy, America, Fareast. Contributions of well known designers from France, Italy, America, Britain and Fareast Countries.

**TOTAL : 45
Hours**

TEXT BOOKS:

1. Retail Fashion promotion and Advertising – Drake et-al , Macmillan publications company, new york.
2. Art and Fashion in clothing selection – Harriet T ,Mc Jimsey, The Iowa state university press, Ames ,Iowa (1973).

REFERENCES:

1. Fashion –From concept to consumer – Gini Stephens Frings , 6th edition, prentice Hall (1999).
2. Inside the fashion business –Bennett, Coleman & o ,Mumbai(1998).

14CDU35**FASHION DRAPING PRACTICAL****SEM-VI****OBJECTIVES:** This paper is designed to develop the draping skill of the students.

1. Draping of Basic Foundation Patterns
 - Blocks and Slopers
 - Basic Bodies
 - Basic Skirt
 - Basic Shift (Torso) and Empire Designs
 - Basic Sleeve
2. Design Variations
 - Bodice Variations
 - Dartless Shapers: Shirt and Kimono Designs
 - Princess Shapers
 - Skirts
 - Pants
 - Raglan Sleeve
 - Collars

TOTAL: 48 HRS

OBJECTIVE:

- To develop skills associated with fashion Photography techniques
- To analyze facial and body proportions and produce photogenic images of a subject and apply the same to original design

1. Photograph Male / Female

2. Photograph a model, next to a window

3. Photograph a finished design from 360° angle (4 angles) at eye-level

4. Photograph a finished design from top angle, low angle

5. Photograph a model – posing (multiple shots)

6. Photograph a group in action

7. Do studio lighting – single light, multiple lights to bring out texture, design aesthetics

8. Do portraits that flatter & character photograph

9. Do portraits of full body images and specific areas

TOTAL: 48 HRS

14CDU37**BEAUTY CARE PRACTICAL****SEM-VI****OBJECTIVE:** To learn about basic beauty care things**1. Bleaching****2. Facial**

3. Hair Remover - Threading, Waxing

4. Hair Style – any 3 styles

5. Hair Cut – any 3 styles

6. Hair Curl, Hair Straightening, Hair Coloring

7. **Makeup – Face makeup, Bridal makeup, party makeup****8. Nail treatment – Pedicure, Manicure, Nail art, Mehandi****9. Saree draping – any 3 styles**

10. Training & visit one day beauty parlour

TOTAL: 48 HRS

14CDU38**PORTFOLIO PRACTICAL****SEM -VI****OBJECTIVES:** To prepare theme based garments

1. Trend Forecasts
2. Theme Write Up.
3. Mood Board – With Research Work.
4. Colour Palette
5. Customer Profile.
6. Fabric Sourcing – Presentation.
7. Design Development
8. Accessory Board
9. Illustration with Back Drops.
10. Flat Sketches
11. Spec sheet
12. Pattern Making And Garment Construction- 4 Garments
13. Fashion Photography
14. Designer show/ Garment exhibition (Four garments)

TOTAL: 120 HRS

14CDU38**PROJECT WORK****SEM-VI****TOTAL: 120 HRS**

OBJECTIVES: Student has to choose a topic and do detail projects work.

@ Sampling Department

@ Knitting & Weaving Department

@ Textile Wet Processing (Dyeing & Printing)

@ GMT Department

@ Sewing Department

@ Finishing Department

@ Packing Department

@ Visual Merchandising

@ Buying House

@ Export Documentations

Course Code & Title	18CDU01 FIBRE AND YARN MANUFACTURING		
Class	I B.Sc	Semester	I
Course Objectives	The Course aims <ul style="list-style-type: none"> • To study the basic natural fibre and their properties. • To study the basic regenerated fibre and their properties. • To study the Polymerization and different types of spinning methods. • To study the Synthetic fibres and their properties. • To study the preparatory and manufacturing process of Yarn and Sewing threads. 		

SYLLABUS

UNIT	Content	No. of Hours
I	TEXTILE FIBRES Introduction to Textile Fibres – Classification of Textile Fibres: Natural fibres – Cotton – Jute – Wool – Silk Fibres – Manufacturing Process – Physical and Chemical Properties of Fibres – Uses of the above fibres.	9
II	REGENERATED FIBRES Regenerated Cellulose fibre – Viscose, Acetate Rayon – Manufacturing Process – and Chemical Properties of fibres – Uses of the above fibres. Regenerated Protein Fibres – Caesin – Vidral - Ardril. Manufacturing Process – and Chemical Properties of fibres – Uses of the above fibres.	10
III	SYNTHETIC FIBRES Man-Made fibre – Type of Polymerization Reaction – Wet, Dry, Melt Spinning – Nylon fibre – Polyester fibre – Acrylic fibre – Manufacturing Process – Properties of fibres – Uses of the above fibres – Bicomponent fibres, Miscellaneous fibres. Texturizing – It's Uses	10
IV	SPINNING PREPARATORY Ginning – Objectives – Types and Working Principle – Mixing and Blending – Blow Room – Objectives of Blow Room – Carding – Objectives – Passage of Material – Drawing – Objectives - Passage – Drafting – Combing- Preparatory for combing– Passage – Combing Machine.	10
V	SPINNING Roving – Passage of Material through Simplex Machine – Spinning – Passage – Drafting – Rotor Spinning Machine – Assembly winder Doubling – Wet and Dry- TFO – Fancy Yarns – Sewing threads – Manufacturing process – Yarn Faults – Causes and Remedies (Self Study).	9
	Total hours	48
References	Text Books: <ol style="list-style-type: none"> 1. Bernard P. Corbman, Textiles Fibre to Fabric, 6th edition, Mc. Graw Hill International Editions, New York, 1983, 1996. 2. S.P.Mishra, A Text Book of Fibre Science and Technology, New Age International (P) Ltd, New Delhi, 2005 Reference Books: <ol style="list-style-type: none"> 1. Susheela Dantiyagi, Fundamentals of Textiles and their Care, Orient Longman Ltd, New Delhi, 5th edition, 1998 	

	<ol style="list-style-type: none"> 2. Miles Collins, Woolen and Worsted Spinning, Abhishek Publication, Chandigarh-17, 2002 3. Parul Bhatnagar, Elementary Textile, Abhishek Publication, Chandigarh, 2002 4. D. Chakravarthy, P.N.Pandy, Silk Worm Crops, Kurl Bhushan Nangia, APH Publishing Corporation, 2005. 5. K.B.Sagadevan, K.S.Shyam Babu, Fibre Science and Technology, A Complete and Comprehensive and a Perfect Finest Blend of Text Book and Guide, The Director of Technical Education, Tamil Nadu, Prepared for 1998 – 1999 Batch Onwards. 6. William & Murphy, Elements of fibre science,1st edition, Abishek publications,Chandigarh,2003. 7. R.Jeffries,Bicomponent fibres, 1st edition,1971,Wood head publishing limited,2004. 8. NIIR Board,The complete Technology book on Textile processing with effluents treatment,Asia pacific of industrial research, National institute of industrial research,Newdelhi,India. 	
Course Outcomes	On completion of the course, students should be able to do <ul style="list-style-type: none"> • CO1: Gain knowledge about Textile fibers, their properties and uses. • CO2: Know about the manufacturing process of yarns and sewing threads. • CO3: Develop skill in understanding textiles available in the market. 	

Course Code & Title	18CDU02 PATTERN MAKING AND GRADING		
Class	I B.Sc	Semester	I
Course Objectives	The Course aims <ul style="list-style-type: none"> • To get skill and knowledge to cut the fabric properly for different styles of garments • To develop knowledge of basic information about pattern making • To develop the basic skills in drafting pattern • To study the basic methods of pattern alteration and fitting • To acquire the skill of draping on dress form. 		

SYLLABUS

UNIT	Content	No. of Hours
I	FABRIC SELECTION AND PREPARATION Selection of Fabric – Factors to be considered in Selection. Preparation of fabric for cutting, Grain – Types of Grain – Importance of Grain in Fabric Cutting and Garment Construction – Methods of Straightening Fabric Ends and Fabric Grain – Stitches – Classification, Dress Making Methods – Tailor Made, Ready Made, Merits and Demerits of children’s and adults wear.	10
II	PATTERN MAKING Pattern Making – Method of Pattern Making Drafting - Measurement – Body Measurement, Allowances for Children, Women, and Men’s Garments, Types of Paper Pattern – Principles of Pattern Drafting – Steps in Children and Adults Bodice and Sleeve Patterns, Pattern alteration, Computerized pattern making, Flat pattern technique.	10
III	LAYOUT PLANNING Pattern Layout – Rules in Pattern Layout – Common Methods for Laying the Pattern – Layout for Asymmetrical Designs, Bold, Striped, Checked and Wavy Design – Economy of Fabrics in Placing Patterns, Alternative techniques if the cloth is insufficient.	10
IV	GRADING& GARMENT FITTING Fitting – Definition – Principles for a Good Fit – Causes for a Poor Fit – Solving Fitting Problems in Various Garments. Grading – Definition – Principles of Grading – Basic Grading of Bodice, Skirt, Pants, Sleeves and Collar – Grading of different Men’s, Women and Children’s Apparels. (self study	10
V	DRAPING Draping –definition, Importance of Draping, types of Dress Form, preparation of adhesive paper dress form, Draping Steps for Basic Bodice – Basic Skirt – Gathered Skirt with Yoke – Pants, Dart manipulation methods, pivot method.	8
	Total hours	48
References	Text Books: 1. Mary Mathews, Practical Clothing Construction, Part-	

	<p>II. Designing, Drafting and Tailoring- Bhattarams Reprographics (P) Ltd., Chennai, 1991.</p> <p>2. Zarakar K.R, System of Cutting, Navneet Publications, India, 2005.</p> <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Helen Joseph-Pattern Making for Fashion Design, Armstrong Pearson Education, Delhi, 2000. 2. Fundamentals and Principles of Pattern Making for Women by Cartis, Irving.E, Black well publications, New Delhi (2004). 3. Draping for fashion design by Hilde Jaffe Nurie Relis, Dorling Kindersley India Pvt.Ltd,2009 4. Grading for Fashion Industry by J.Patrick Taylor, M.Martin, Shobannational institute of public co-operation, 1999. 5. Fundamentals and Principles of Pattern Making for Women by Cartis, Irving.E, Black well publications, New Delhi (2004). 6. Professional Pattern Grading for Women's, Men's and Children's Apparel by Greey Cooklin, Black well publications, New Delhi (2004). 7. Grading for fashion Industry, by M.M.Shoben, NIFT, New Delhi (1999). 	
<p>Course Outcomes</p>	<p>On completion of the course, students should be able to do</p> <p>CO1: Outline the different pattern adaptation techniques used to fit the different figure shapes and garment sizes.</p> <p>CO2: Devise the relationships amongst design, patternmaking, grading specifications, sewing and fitting techniques for various styles of intimate products.</p> <p>CO3: Gain knowledge on basic draping techniques and methods</p>	

Course Code & Title	18CDU03 CONCEPTS OF FASHION DESIGNING		
Class	I B.Sc	Semester	I
Course Objectives	The Course aims <ul style="list-style-type: none"> • To learn and know the different fashion terms • To understand the fundamentals of design elements & principles • To acquire knowledge in the field of colour and its harmony • To get an idea about how to design garment to irregular figures 		

SYLLABUS

UNIT	Content	No. of Hours
I	Fashion Theory & Terminologies -Introduction to Fashion - Adoption of fashion- Trickle down, trickle up, and trickle across. Style, fad, classic, and collection, chic, custom-made, mannequin, fashion show, trend, forecasting, high fashion, fashion cycle, haute couture, couture and couturier. Fashion director, fashion editor, line, knock-off, avant garde, bridge jewellery, buying house, apparel, fashion merchandising and pre- a- porter. Fashion Theories	8
II	Design Elements Design: Definition, Types of design - Structural and Decorative Design, Application of structural and decorative design in a dress, selection and application of trimmings and decorations. Elements of Design- Line, Shape or Form, Colors, Size and Texture. Functions of lines. Silhouettes, different types of lines and its characteristics. Use of lines in clothing according to the body shapes. Optical illusions created by various combinations of lines.	10
III	Design Principles Principles of design: Balance its types - Formal and Informal, Rhythm its types - through repetition, radiation and gradation, Emphasis its types -, Harmony its types – line, shape and idea, Proportion its types - good and bad proportion. Application of principles of design in dress. Fashion Accessories- shoes, handbags, hats, ties- different types/ shapes.	10
IV	Colour Definition, colour theories- Prang colour chart and Munsell colour system, Dimensions of colour - Hue, Value and Intensity. Warm and Cool colors. Seasonal colors. Standard colour harmonies- Related and contrasting colour harmony. Application of colour harmonies and its sub divisions. Related – Monochromatic and Analogous. Contrasting colour harmony: direct, double, split, triad and tetrad. Colour in principles of design- application of the same in dress design. Application of color psychology in dress designing.	11
V	Figure Irregularities Designing garment for irregular figure types. Becoming and unbecoming of the following figure types: stout figure, thin	9

	figure, narrow shoulder, broad shoulder, round shoulder, large bust, flat chest, large hip, large waist and hips, long waist, slender figure, short waist, long neck, short neck, large face, small face, square face, round face narrow pointed face, prominent nose, prominent chin & Jaw.	
	Total hours	48
References	<p>Text Books:</p> <ol style="list-style-type: none"> 1. Harriet Goldstein; Vetta Goldstein ; Art in Every Day Life , The Macmillan Company, (1929) 2. Gini Stephens Frings; Fashion from Concept to Consumer, Pearson Education Inc, Singapore, 7th Edition, (2005). <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Jay Diamond, Ellen Diamond, Fashion Apparel Accessories and Home Furnishings, Pearson Education Inc, Singapore, (2008). 2. James Ezekiel, “An Insite Into Fashion History”, Abhishek Publications, 1st Edition,(2005). 3. Michale R Solomon and Nancy J Robolt, “Consumer Behaviour in fashion”, Pearson Education Inc, Singapore, 1st Edition, (2006). 4. Sharon Lee Tate; Inside Fashion Design, Pearson Education Inc, Singapore, 5th Edition, (2008). 5. Kitty G. Dickerson; Inside Fashion Business, Pearson Education Inc, Singapore, 7th Edition, (2004) 	
Course Outcomes	<p>On completion of the course, students should be able to</p> <p>CO1: Know the actual concepts of fashion and how elements and principal of incorporated in garment designing.</p> <p>CO2: Acquire knowledge on handling colours and its combinations to crate harmony in design.</p> <p>CO3: Use the design elements for irregular figures and optical illusion created by design elements.</p>	

Course Code & Title	18CDU04 BASICS OF APPAREL CONSTRUCTION – I PRACTICAL		
Class	I B.Sc	Semester	I
Course Objectives	The Course aims <ul style="list-style-type: none"> • To study and prepare the basic samples for apparel construction. • To identify and practice for the woven and knitted fabrics • To know about the sewing machine parts and functions • To know about the safety measures and maintenance 		

SYLLABUS

UNIT	Content	No. of Hours
	1. Demonstrate the functions of sewing machines and their care & maintenance. 2. Preparation of permanent hand stitches- run, back and run and back a. Preparation of Samples for Seams (Plain, Single Top Stitch, Double Top Stitch, Welt, Lapped, Slot, French, Mantua Makers, Flat fell - Machine & Hemmed, Piped and Corded Seam. b. Preparation of Samples for Seam Finishes (Pinked, Double Stitch, Edge Stitch, Herring Bone, Over Cast, Bound Seam edge finish). 3. Preparation of Samples for Fullness (Darts, Tucks, Pleats, Godets, Gathers and Shirrs, Frills and Ruffles). 4. Preparation of Samples for Necklines (Facing-Bias, Shaped, Decorative and Binding- Bias and French) 5. Preparation of Samples for Pockets(Patch Pocket, Welt / Bound Pocket, Set- in Pocket / Side Seam Pocket) 6. Preparation of Samples for Plackets and Openings with Fasteners 7. One Piece or Continuous Bound Placket with hook & eye, button loops & button, Two Piece or Faced and Bound Placket with press button, button& button hole, Zipper Placket – Slot & Lapped with Velcro, Tailor Placket / Box Pleat Placket with shirt button. 8. Preparation of Samples for over lock stitch (3,4,5 threads),flat lock stitch (4 & 5 threads), double needle stitch , button and button hole stitch.	36
Course Outcomes	On completion of the course, students should be able to CO1: Establish equipment required for basic sewing skills CO2: Establish different construction techniques used in the garment industry. CO3: Improve the basic knowledge on hand and machine stitches.	

Course Code & Title	18CDU05 CONCEPTS OF FASHION DESIGNING PRACTICAL		
Class	I B.Sc	Semester	I
Course Objectives	The Course aims <ul style="list-style-type: none"> • To study the fundamentals of colour theory. • To study the basic figure illustration and shading techniques. • To study the basic types of Textile design. 		

SYLLABUS

UNIT	Content	No. of Hours
	<p>1. Prepare the following Charts:</p> <ol style="list-style-type: none"> a. Prang colour chart b. Value chart c. Intensity chart <p>2. Illustrating head theories</p> <ol style="list-style-type: none"> a. stick figures – 8^{1/2}, 9 and 10 b. converting block figure into fleshy figure c. Head theory 8^{1/2}, 9, 10 and 12 <p>3. Illustrating Calligraphical figures</p> <ol style="list-style-type: none"> a. A, C I b. S, X and Z <p>4. Principles and techniques of Illustration and shading – on garments</p> <p>5. Developing Textile Design (each 5 designs)</p> <ol style="list-style-type: none"> a. Natural b. Conventional c. Geometric d. Abstract e. Historic 	36
Course Outcomes	<p>On completion of the course, students should be able to</p> <p>CO1: Make basic fashion sketching.</p> <p>CO2: Develop textile designs based on requirement.</p> <p>CO3: Gain knowledge on types of design.</p>	

Course Code & Title	18CDU06 WOVEN FABRIC MANUFACTURE		
Class	I B.Sc	Semester	II
Course Objectives	The Course aims <ul style="list-style-type: none"> • To study the weaving preparatory process • To gain knowledge about loom and its functions • To understand and study about modern looms • To acquire basic knowledge about different types of weave structure • To create awareness about non- woven and its application. 		

SYLLABUS

UNIT	Content	No. of Hours
I	PREPARATION FOR WEAVING Weaving introduction - Weaving preparatory – Object of winding – High speed winding machine – Weft winding – Warping machine – Sectional warping machine – Sizing – Sizing ingredients – Sizing machine – Drawing in – Denting.	10
II	LOOM MOTIONS Looms – Passage of yarn through loom – Primary motion – Secondary motion and Auxiliary motion – Handloom, Power loom, Automatic loom.	10
III	MODERN LOOMS Dobby loom, Drop box loom, Jacquard loom — Shuttle less weaving – Projectile loom, Rapier loom, Air jet loom, Water jet loom, Selvage formation – Multiphase Weaving, Woven fabric defects(self study)	10
IV	WEAVE DESIGNS Elements of design, Draft, Peg plan, Weave – Plain, Twill, Satin, Sateen, Honeycomb, Huckaback, Terry-Extra warp, Extra weft, Backed fabric, Gauze and Leno, Double fabric.	10
V	NON WOVENS Non Woven- Introduction – Types - Non Woven Techniques – Applications	8
	Total hours	48
References	Text Books: <ol style="list-style-type: none"> 1. Fabric Forming by Husmuga Rai, New Age International (2000). 2. Fabric Structure and Design by N.Gokarneshan, New Age International (2009). Reference Books: <ol style="list-style-type: none"> 1. Watson’s advanced textile design - compound woven structure (fourth edition) by Z.J. Grosicki, Universal publishing corporation. (1989). 2. Weaving calculations by Sen Guptha, Taraporevala publications ltd., (1966). 3. Fabric Forming by K.Sagadevan, KLRCollege, New Age International (2000). 	

Course Outcomes	On completion of the course, students should be able to CO1: Able to identify loom requirements to manufacture different weave structures CO2: Design weaves patterns based on enduses. CO3: Apply and understand the application of non woven fabrics.
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Course Code & Title	18CDU07 KNITTED FABRIC MANUFACTURE		
Class	I B.Sc	Semester	II
Course Objectives	The Course aims <ul style="list-style-type: none"> • To study about the knitted fabric and its classifications • To understand and study about the modern knitting machines • To gain knowledge about working principles of the knitting machines • To acquire basic knowledge about the knitted fabric structure • To create awareness about seamless garments. 		

SYLLABUS

UNIT	Content	No. of Hours
I	KNITTING Introduction to Knitting– Classification of Knitting– Comparison of Weaving and Knitting – Comparison of Warp and Weft Knitting– Important Terms in Knitting – Coarse – Wales – Gauge – Face Loop – Back Loop – Loop Length.	8
II	ELEMENTS OF KNITTING Passage of Single Jersey Circular Weft Knitting Machine – Element of Knitting Machine – Needle – Sinker – Cam – Feeder – Single Jersey, Double Jersey, Rib Knit Structure- Inter Lock Knit Structure – Purl Knit Structure – Knit Stitch, Tuck Stitch, Float Stitch.	10
III	KNITTING MACHINES Knitting Machines – Jacquard Knitting Machine – Scope of Computerized Jacquard Knitting Machine – Knitted Fabric Defects – Causes and Remedies.	10
IV	FLAT KNITTING Principles of Flat Knitting Machine – flat weft knitting- passage of material through flat weft knitting, Flat Bed Pearl Knitting, Flat knitting Basic structures- Cardigan, Racked Rib and Cable stitch - Fabric Quality Control	10
V	WARP KNITTING Principles of Warp Knitting: Important Features- Different Types- Knitting Elements- Knitting Actions-Tricot, Rachel, Milanese – Standard Structures – Design Development. Seamless garments – Fields and applications.	10
	Total hours	48
References	Text Books: <ol style="list-style-type: none"> 1. Anbumani, Knitting Manufacture Technology, New Age International, Chennai, (2006). 2. Knitting and Apparel Technology, S.S.M.I.T Co-operative Society Reference Books: <ol style="list-style-type: none"> 1. D.B.Ajgaonkar, Knitting Technology, Universal Publishing Corp, Bombay, 1998. 2. Debby Robinson, The Knitting Encyclopedia of Knitting Technology, The Editing published, (1989). 3. David J. Spencer, Knitting Technology, Woodhead Publishing Ltd., Cambridge England, Third edition, 	

	<p>(2001).</p> <p>4. Dr. S. Raz, Warp Knitting Production, Verlag Melliand Textile Berichte GmbH, Heidelberg, 1987.</p> <p>5. Chandrasekara Iyer, Bernd Mammel and Wolfgang Schach, Circular Knitting, Meisenbach Bamberg (1992).</p> <p>6. Samuel.R, Flat Knitting, Meisenbach Bamberg, Germany, 1991</p>	
Course Outcomes	<p>On completion of the course, students should be able to</p> <p>CO1: Understand Manufacturing Techniques and applications of knitting.</p> <p>CO2: Understand the structural property relations of knitted fabrics.</p> <p>CO3: Know about the applications and enduses of knitted fabrics.</p>	

Course Code & Title	18CDU08 FABRIC STRUCTURE ANALYSIS PRACTICAL		
Class	I B.Sc	Semester	II
Course Objectives	The Course aims <ul style="list-style-type: none"> • To analyses the woven and knit fabrics structures. • To understand the design, draft and peg plan for different woven structures. • To study and compare different knitted and woven structure. 		

SYLLABUS

UNIT	Content	No. of Hours
	<p>I WOVEN FABRIC</p> <ol style="list-style-type: none"> 1. Analysis the woven sample-Plain weave 2. Analysis the woven sample-Twill weave 3. Analysis the woven sample-Satin weave 4. Analysis the woven sample-Huckaback weave 5. Analysis the woven sample-Extra Warp weave 6. Analysis the woven sample-Honey Comb weave 7. Analysis the woven sample-Terry weave <ul style="list-style-type: none"> • Warp density(Ends Per Inch) • Weft density (Picks Per Inch) • Count • Crimp Percentage • Cover Factor • Area density (GSM-Weight of Sample/sq.m) • Design, Draft and Peg Plan <p>II KNITTED FABRIC</p> <ol style="list-style-type: none"> 1. Analysis the knit sample- Single Jersey 2. Analysis the knit sample- Rib 3. Analysis the knit sample- Interlock 4. Analysis the knit sample- Jacquard <ul style="list-style-type: none"> • Grams per sq.m • Count • Structure • Coarse and Wales per inch • Tightness factor <p>III COLLECTION OF SAMPLES</p> <ol style="list-style-type: none"> 1. Collect any five samples of Woven fabric 2. Collect any five samples of Knitted fabric 	48
Course Outcomes	<p>On completion of the course, students should be able to</p> <p>CO1: Design their own fabric designs with draft and peg plan.</p> <p>CO2: Understand the fabric types and its properties.</p> <p>CO3: Design their own fabrics.</p>	

Course Code & Title	18CDU09 BASICS OF APPAREL CONSTRUCTION – II PRACTICAL		
Class	I B.Sc	Semester	II
Course Objectives	The Course aims <ul style="list-style-type: none"> • To study the basics of apparel construction • To gain knowledge in different types of samples • To develop the basic samples for sleeves and collars • To construct the yokes on bodice and skirts. 		

SYLLABUS

UNIT	Content	No. of Hours
	<ol style="list-style-type: none"> 1. Preparation of Samples Set – in Sleeves: Plain, Puff, Bishop, Circular, Leg –o-Mutton Sleeves. 2. Preparation of Samples Sleeveless Styles: Square, Cap, Long / Short Magyar Sleeves. 3. Preparation of Samples Sleeves Combined with Bodice: Kimono, Dolmon, Batwing, Raglan Sleeves. 4. Preparation of Samples Collars : Flat Collar – Peter Pan collar, Cape, Puritan, Scalloped, Chinese, Turtle Neck, Shawl, St. line Full roll Convertible collar. 5. Preparation of Sample bodice /Skirt Yokes: Simple, Yoke with Fullness, Yoke Releasing Fullness, Midriff (Yoke Supporting Fullness), Panel and Partial Yoke. Preparation of Samples Skirts: Plain, Yoke Skirt, Circular Skirt, Layered Skirt. 6. Preparation of sample fasteners with button and button hole stitches. 	36
Course Outcomes	On completion of the course, students should be able to CO1: Gain knowledge on basics sewing techniques CO2: Gain knowledge on the basic pattern making concepts CO3: Develop new designs	

Course Code & Title	18CDU10 BASICS OF FASHION DESIGNING PRACTICAL		
Class	I B.SC	Semester	I
Course Objectives	The Course aims <ul style="list-style-type: none"> • To study the fundamentals of Illustration techniques. • To learn textile art. • To learn techniques in creating textures and patterns. • Various mediums of sketching. 		

SYLLABUS

UNIT	Content	No. of Hours
	<ol style="list-style-type: none"> 1. Perspective view drawing and objective drawing. 2. Drawing of various textures and textile design art. 3. Drawing of different types of silhouettes. 4. Illustrate facial features – eyes, nose, lips, chin, ears, hands and legs. 5. Illustrate hair styles for kids, men and women. 6. Drawing of accessories. <p>For the above experiment, use the colour Medias - Graphite pencil, Color pencil, Crayon, Water color, Poster color and Fabric Color.</p>	36
Course Outcome	On completion of the course, students should be able to CO1: Become artist in IT sectors CO2: Become web animation designer CO3: Become familiar artistic designer.	