

GARDEN CITY UNIVERSITY
SCHOOL OF PROFESSIONAL STUDIES
PROGRAMME: M.Sc. FASHION & APPAREL DESIGN

I SEMESTER

CORE COURSES:

Course Code	Course Title	Paper	Credits	CIA	ESE	Total
07BMSFR19111	Basics of Textile Science	Theory	4	40	60	100
		Practical	2	20	30	50
07BMSFR19112	Basics of Design	Theory	4	40	60	100
		Practical	2	20	30	50
07BMSFR19113	Garment Construction - 1	Theory	4	40	60	100
		Practical	2	20	30	50
07BMSFR19114	CAD in Fashion	Practical	2	20	30	50
07BMSFR19115	Fashion Merchandising and Retail Management	Theory	4	40	60	100
			24	240	360	600

ESE – End Semester Examination

CIA – Continuous internal assessment

Pass % - ESE – 30%, CIA – 50%, Cumulative – 40%

I SEMESTER

Course Title: BASICS OF TEXTILE SCIENCE

COURSE CODE: 07BMSFR19111	CIA Marks: 40
CREDIT: 4	ESE Marks: 60
No of lecture Hours. / Week: 04	Total no. of Lecture Hours: 60

Objective:

- To introduce students to be briefly acquainted with the textile processes in Apparel Production
- To briefly understand woven and knitted fabrics.
- Application of woven and knitted fabrics in the apparel industry

Unit - 1: Introduction to Textile

- 1.1 Introduction to textiles,
- 1.2 Definition, Sources, Classification of textile fibres, Properties of textile fibres,
- 1.3 Yarns & Sewing Threads – Spun and filament yarns, classification of yarns, brief introduction to the yarn manufacturing process, Yarn numbering system, and yarn twist. Sewing threads characteristics
- 1.4 Fabrication and its properties – Woven, knitted and other types of textiles –non woven fabrics, felt, bonded, quilted material, laminated material, stitch bonding, lace fabrics, embroidery, tufted fabrics.

Unit - 2: Weaving and its features

- 2.1 Elementary weaves – Classification of woven fabrics glossary and characteristics, Salient features and construction of Plain weave and its variation, Twill weave and its variation, and Satin / Sateen weave, Fabric design and graphical representation of the above weaves.
- 2.2. Compound weaves – Classification of woven fabrics glossary and characteristics, Salient features of crepe fabrics like georgette, chiffon, Warp and weft pile: Brocade and Damask, Terry pile structures.

Unit - 3: Knitting

- 3.1 Knitting process, Different types of stitches; Various types of knitted fabrics - birds eye, crochete, jersey, interlock, ottoman rib pique, polar fleece, feeder stripe, auto stripe, engineered stripes, Milano, pile knit, pointelle, purl, raschel, rib, tricot; Knit structure and representation; Defects in knitted fabrics, Applications and uses.
- 3.2 Introduction to Knitting machineries.
- 3.3 Important difference between knitted and woven fabrics

Unit – 4:

- 4.1 Surface techniques on fabrics, Value added fabrics, Sustainable textiles.
- 4.2 Application of textiles in various industries
- 4.3 Understanding fabric glossary.

Reference books:

- Hall ,A.J. "*The Standard Handbook of Textiles*" Wood head Publishing 8th edition, 2004
- Smith ,J.E. "*Textile Processing*" Abhishek Publication, 2003
- Grosicki, Z.J. "*Watson's Textile Design and Color*" Wood head Publishing 7th edition.
- Gohl,E.P.A and Velensky,L.D. "*Textile Science*" CBS Publishers and Distributors, 2003
- Terry Brackenbury, “Knitting Clothing Technology”, Blackwell Publishing, 2005
- David Spencer, “Knitting Technology”, Pergamon Press, Oxford, 2001.
- George A Tay, “Fundamentals of weft knitted fabrics”, National Knitwear and Sportswear Association, New York, USA, 1996.
- Booth,J.E. " *Principles of Textile testing*" CBS Publishers and Distributors, 2001
- Murphy,W.S. " *Textile Weaving and Design*", Abhishek Publication, 2003

PRACTICALS

COURSE CODE: 07BMSFR19111 (P)	CIA Marks: 20
CREDIT: 2	ESE Marks: 30
No of lecture Hours. / Week: 02	Total no. of lab sessions - 15

Unit – 1: Identification of Fibres and yarns

- 1.1 Identification of different types of fibres by physical methods – Natural fibre materials (cotton, silk, wool, jute.etc) and Man-made fibre materials (viscose rayon, acetate rayon, polyester, acrylic, nylon fibres.etc.).
- 1.2 Identification of yarns and its application
- 1.3 Collection of yarn samples with associated products.

Unit – 2: Analysis of Fabrics

- 2.1 Analysis of different fabrics for clothing construction and weaves like plain, twill, sateen/satin, honeycomb, herring bone and mock leno etc.
- 2.2 Determination of fabric geometric parameters -Threads per Inch, Count, Cover Factor, Type of Yarn, Fabric thickness, Fabric Weight.
- 2.3 Woven fabrics glossary and characteristics.
- 2.4 Folio preparation of commercial woven, Knitted and other fabrics

Unit – 3: Knitted fabrics

Knitted fabrics: determination of Course per inch, wale per inch, thickness, GSM, Loop length, Count of yarn and tightness of the fabric.

Unit – 4: Fabric testing

- 4.1 Fabric Performance Tests – Fabric strength – tensile and tearing, crease recovery, drape, stiffness, tearing.
- 4.2 Colour Fastness Testing - Colour fastness to rubbing using crock meter, Colour fastness to washing using laundrometer, Colour fastness to light. Determination of fabric shrinkage,
- 4.3 Determination of seam strength and seam slippage.

4.4 Garment accessories testing.

I SEMESTER

Course Title: BASICS OF DESIGN

COURSE CODE: 07BMSFR19112	CIA Marks: 40
CREDIT: 4	ESE Marks: 60
No of lecture Hours. / Week: 04	Total no. of Lecture Hours: 60

Objectives:

- Students draw fashion figures using proportion, movement, silhouettes, and details from the fashion model in a variety of poses.
- Emphasis is placed on experimenting with various media and techniques to render the different characteristics of fabric

Unit 1

- 1.1 Fashion origin and evolution, Fashion terminologies, Fashion theories, Different art Medias.
- 1.2 Introduction to Anatomy, Proportions of Female, Male and Children, Fashion figure-8, 10, 12 head theory of fashion drawing
- 1.3 Design Concepts: Elements and principles of design, Application of design concepts in fabrics and fashion products.
- 1.4 Couture: Meaning and place in the fashion industry, organization, controlling bodies, International couture, decline and revival of couture, characteristics and specialties.

Unit 2

- 2.1 Ready-to-wear: Definition, origin, evolution of utility clothing, design process, manufacturing techniques, work rooms and studios
- 2.2 Home fashions: Evolution of designs in home fashions, Categories of home furnishing products - upholstery, table, bed and bath linen, styles, licensing and retailing of home fashions.

Unit 3

- 3.1 Mass Production: Process, production, sizing, design strategies, lines within a design house, off-shore production and new trends.
- 3.2 Body garment relationship – Ideal figure, figure types, figure analysis, garment design, fabric characteristics and design, structure framework, contours, proportions, height and weight distribution.

Unit 4

- 4.1 Designing of apparels for specialty shows: Introduction, need for specialty shows, different categories- Fashion shows, trade shows, collection shows.
- 4.2 Designing for special categories: Infants, maternity, plus-size, old-age, physically challenged.
- 4.3 Designing of intimate apparels: Evolution of styles from antiquity to modern, fibers, fabrics & accessories used, types of intimate apparels, relationship between intimate apparel designs and ready-to-wear designs.
- 4.4 Designing with leather and fur: Materials, production procedures- processing, finishing and apparel production, styles, laws and regulations, marketing and scope.

References:

1. Gavin Waddell, "How Fashion works", Blackwell Publishing, 2005.
2. Jay Diamond, Ellen Diamond, "The World of Fashion", Fairchild Publication, 3rd Edition, 2002.
3. Frances LetoZangrillo, "Fashion Design for the Plus-size", Fairchild Publication, 1999.
4. Laver, James, "Costumes & Fashions: A concise history", Thames & Hudson, 1982.
5. Rubin LG, "The World of Fashion", Canfield press, 1976

PRACTICALS

COURSE CODE: 07BMSFR19112 (P)	CIA Marks: 20
CREDIT: 2	ESE Marks: 30
No of lecture Hours. / Week: 02	Total no. of lab sessions - 15

Unit – 1

- 1.1 Introduce to design process:- Elements and Principles of design. Apply the knowledge of silhouettes and shapes to garment illustration.
- 1.2 Use the work of various designers to understand various elements and principles, Line – Vionnet, Shape –Viktor & Rolf, Texture – Lanvin, Pattern – Pucci, Missoni, Colour – Gucci, Balance - Balenciaga, Proportion – Christian Dior.
- 1.3 Three dimensional sketching of elements and principles of design
- 1.4 Rendering of elements and principles of design

Unit – 2

- 2.1 Proportions of Female, Male and Children,
- 2.2 Drawing the fashion figure –8,10 and 12 head, developing personal style using various media (pencil, colour pencil, pastel, ink, water colour, collage)

Unit – 3

- 3.1 Designing for special categories: Infants, maternity, plus-size, old-age, physically challenged.
- 3.2 Designing of intimate apparels and ready-to-wear designs, with leather and fur.

Unit - 4

- 4.1 Analyzing Colour through market research.
- 4.2 Paper Presentation on colour trends seen in at least two leading women's wear (Rohit Bal, Sabyasachi, Tarun Tahiliani, Abraham & Thakore /Biba, AND, Marks & Spencer, Vero Moda)
- 4.3 Paper Presentation on colour trends seen in at least two leading menswear brands (Peter England, Van Heusen, Allen Solly, US Polo Association, Benetton, Wills Lifestyle).
- 4.4 Designing of apparels for specialty shows: Fashion shows, trade shows, collection shows.

I SEMESTER

COURSE TITLE: GARMENT CONSTRUCTION – 1

COURSE CODE: 07BMSFR19113	CIA Marks: 40
CREDIT: 4	ESE Marks: 60
No of lecture Hours. / Week: 04	Total no. of Lecture Hours: 60

Objectives:

- To familiarize the student with the working of the Apparel Industry.
- To understand the aspects of pattern making, different types of machines and its maintenance.

Unit - 1: Introduction to Pattern Making

- 1.1 Introduction to pattern making: Tools and Methods (Drafting, Draping), Pattern making terminology.
- 1.2 Overview of industrial sewing machines: Features, mechanism, working principle and application of SNLS machine, DNLS machine, over lock machine, blind stitch machine, button sewer and buttonhole machines, bar tack machines.
- 1.3 Study of compatibility of stitch classes and needle types used in industrial sewing machines, seam types and its application.
- 1.4 Selection & application of bed types, machine attachments types, profiles, feed mechanism for different types of fabrics & garment style variation
- 1.5 Hand and Machine Stitches, Seam Classification

Unit - 2: Basic Bodies Pattern Making

- 2.1 Study of Standard charts, Taking measurements, Bespoke and Industrial method of pattern making, Drafting (1/4th Scale), Basic Bodice, Sleeve and Skirt (For Women), Bodice and Knickers (For Kids), Formal Shirt and Pleated Trouser (For Men).
- 2.2 Techniques of Pattern Making - Principles of Patterning, Principles of Fitting, Pattern alteration techniques- Pivotal, Slash & Spread Techniques

Unit – 3: Introduction to Apparel Industry

- 3.1 Introduction to Indian apparel industry: Organisational structures and sectors of the garment industry,
- 3.2 Opportunities and challenges in Indian apparel sector, overview of global industry, major trends in international apparel industry.
- 3.3 Pre production process: Tech-pack analysis, sampling, pattern and marker preparation, fabric and accessory procurement, sample types, approvals.
- 3.4 Sampling department - importance of sampling department, objectives, types of sample-prototype, fit sample, pp sample, size set, production sample, shipment sample.
- 3.5 Garment production: Sequence of production operations for shirts, trousers, jackets, skirts and vests.

Unit 4: Insides of Apparel Industry

- 4.1 Fabric spreading technology: Forms of spreading for different types of fabrics, lay types, spreading modes, spreading methods & machines- manual and mechanical methods. Advanced spreading machines: Semi automatic and automatic-programmable spreading

machine.

- 4.2 Cutting technology: Cutting techniques, considerations of cutting parameters for different fabrics Cutting machines and its working principle, recent advancements in cutting technology- semi automated and automated cutting machines, working environment and safety measures. Fusing technology: Fusing materials, components of fusing, and types of resin coating & its applications for various apparel products, selection of fusing machines types, working principle and their application.
- 4.3 Selection of production system - progressive bundle system, unit production system, modular manufacturing, piece work. Production planning, Linear manufacturing process.
- 4.4 Pressing and folding process: Steam boilers, pressing tables, machinery and equipments, types of folds, folding equipment and accessories. Packing: Function and scope of packing, packing methods, instructions, materials, weight, Ratio of packing: Solid packing; Short shipment: Excess shipment; Calculation of volumetric weight: Carton dimension, and labeling considerations for shipment by air and sea, packing marks, warehousing - assortment and storage methods.

References:

- Armstrong Helen Joseph, Pattern Making for Fashion Design, 3rd edition, Prentice Hall, 1999.
- Ruth E Glock, Apparel Manufacturing- Dorling Kinderley (India) Pvt. Ltd.
- Gerry Cooklin ,Introduction to Clothing Manufacture- Om Books International
- Harold Carr, The Clothing Manufacture, 2nd edition, Blackwell publishing.
- Robin Mathew, Apparel Merchandising, Published by Book Enclave, 2008.

PRACTICALS

COURSE CODE: 07BMSFR19113 (P)	CIA Marks: 20
CREDIT: 2	ESE Marks: 30
No of lecture Hours. / Week: 02	Total no. of lab sessions - 15

Unit – 1

- 1.1 Introduction to Pattern Making-Pattern making tools, Pattern making terms,
- 1.2 Anthropometric measurements (in cms and inches) Study of various sizes and measurements: measurement charts, selection of right size, concepts of fitting.
- 1.3 Dart manipulation on women's wear
- 1.4 Development of basic blocks: men's and women's bodice

Unit – 2

- 2.1 Sample development of sleeves, yokes and pockets
- 2.2 Sample development of collars and necklines

Unit – 3

- 3.1 Garment development for - A- line frock, dress
- 3.2 Garment development for Boys – Shirt and shorts

Unit – 4

Designing and stitching of women's wear – Top and skirt / dress

I SEMESTER

Course title: CAD IN FASHION (Practical's)

COURSE CODE: 07BMSFR19114 (P)	CIA Marks: 20
CREDIT: 2	ESE Marks: 30
No of lecture Hours. / Week: 02	Total no. of lab sessions - 15

Instructions:

Following software required for the practicals

- Fashion forecasts website
- Photoshop for collage work
- CorelDraw / Illustrator for Flat sketches.

Unit-1:

- 1.1 Fashion Forecasting - Introduction to fashion trend forecasting websites, How to navigate the website, Sourcing the computer about fashion trend forecasting.
- 1.2 Introduction to Photoshop - Photoshop tools in detail, enhancing images, Masking, transforms, working with layers. Merging & blending layers, text effects. Create an advertising brochure
- 1.3 Create Mood / Inspiration, Create client / customer, Create colour and Texture board using Photoshop.

Unit - 2:

- 2.1 Introduction to CorelDraw / Illustrator. Learning basic tools of Coral Draw / Illustrator.
- 2.2 Logo Designing, Creating Tags & Labels – Main label, Size label, Wash Care label, Content label using Corel Draw / Illustrator.
- 2.3 Motif Development – Symmetrical / Asymmetrical, Balanced / Unbalanced, Repeats – Full, ½ Drop, ¼ Drop, ¾ drop - H/V, Design Placements on Borders, Pallu & Allover.
- 2.4 Creating fashion accessories like necklace, bracelet, anklets, ear ring, and head gear .Etc Using Coral Draw.

Unit - 3:

- 3.1 Designing Flat Sketches - Design flat sketches along with stitch specification for the following: Children – Girls (A-line frock and skirt), Boys (shirt & shorts), Adults – Women's (Top, Skirt, gown), Men's (Shirt, Kurtha, Trouser).
- 3.2 For the above create spec sheets, cost sheets for each garment using Fashion Studio software / Photoshop / Corel Draw.

Unit - 4: Developing Window Display

Window display products / commodities for a retail shop.

Recommended books

1. CAD for Fashion Design by Renee Weiss Chase, Prentice hall Pub.
2. Fashion Design on Computers by M. Kathleen Colursy, Prentice Hall.

I SEMESTER

COURSE TITLE: FASHION MERCHANDISING & RETAIL MANAGEMENT

COURSE CODE: 07BMSFR19115	CIA Marks: 40
CREDIT: 4	ESE Marks: 60
No of lecture Hours. / Week: 04	Total no. of Lecture Hours: 60

Objectives:

- To familiarize students with the role of merchandiser and importance of merchandising department in the fashion business.
- To understand the success of retail functions - Planning, sourcing, assortment and Inventory management.
- To make students understand the concept of Planning, procuring and managing the skills of Merchandise.

Unit 1

- 1.1 Merchandising Theory: What is merchandising, function, factors affecting merchandise functions, the merchandisers role and responsibilities- Planning, Directing, Coordinating, Controlling of Merchandise operations, merchandiser's key responsibilities.
- 1.2 6 R's of fashion merchandising, fashion forecasting, fashion interpretation, merchandise resource planning, elements of planning, capacity planning, merchandising calendar, KPI measurements, buying and selling seasons in different market.
- 1.3 Preproduction activity: Pre-production & TNA meetings, sampling-developing samples, sample types, sample approvals, lab dip, yarn dip, bit loom, strike offs, pre-costing and order follow-up. Order confirmation, consumption, final costing, pricing, purchasing of raw materials, and bill of materials, trim card, production file, and production follow-up.

Unit 2

- 2.1 Developing and presenting product lines: New product line development: Types of products, study apparel product lines, product life cycle, brand management, idea generation, screening, concept testing, test marketing, commercialization, product positioning, major reasons for product failure, presenting product lines, global sourcing, and vendor management.
- 2.2 Purchase Management: Role and responsibilities of purchase department, purchase cycle, global sourcing methods, identification of vendors, vendor analysis, evaluation of vendor, ratings criteria and selection procedure, negotiation and bargaining, vendor relations.

Unit 3

- 3.1 Overview of Retailing Environment, Store Formats – Retail formats: Organized, unorganized formats, types of retail stores – convenience stores, super markets, departmental stores, hyper markets, lifestyle stores, franchisee outlets & specialty stores.
- 3.2 Retail Store Business Plan, profit planning, net profit margins, returns on assets, budgeting decisions, magnitude of various costs, productivity targets, operating expenses.
- 3.3 Retail Market structure, retail functions & distribution, channels of distribution, sorting process, relationship between retailers & their suppliers, wholesaling, exclusive distribution, intensive distribution, selective distribution, marketing concepts in retailing, structure of

global retail markets & consumers, profile of Indian retail markets. 3.2 Domestic and export marketing: Study of market, market structure, market types, business strategic planning, micro and macro environments, market development, problems and benefits.

- 3.4 Marketing mix, assortment and range planning, promotional techniques, distribution channels, market intermediaries & logistics management.
- 3.4 Departmentalization, Layout planning and space allocation, Basic Profit Factors – The Relationship of Markup to Profit, Retail pricing & re-pricing

Unit 4

- 4.1 Store operations; Store formats, size & space allocation, operating functions to be performed, personnel utilization, store maintenance, energy management & renovations, inventory management, credit management, computerization, crisis management, insurance.
- 4.2 Sales promotion techniques, advertising, public relations, personnel selling, publicity, role of salespersons, word of mouth, incremental promotion method, distributed promotion method, setting retail promotion goals.
- 4.3 Emerging trends and issues in marketing: Consumerism, rural marketing, social marketing, online marketing, and green marketing
- 4.4 Customer Service; Loyalty Programmes and Customer Relationship Management

References

- Ruth E Glock & Grace I Kunz Apparel manufacturing: Sewn product Analysis, (June 8, 2003), 4th edition Dorling Kinderley (India) Pvt. Ltd
- Sandra J Keiser and Myra.B.Garn Beyond Design: The Synergy of Apparel Product Development, 3rd Edition, Bloomsburg Publishing Inc. 2012.
- John Donnellan Merchandising Buying & Management:, 3rd Edition, Fairchild Publications Philip Kotler , Kevin Keller, “Marketing Management”, Prentice Hall, 14th Edition, 2011.
- Grace I. Kunz, “Merchandising: Theory, Principles, and Practice”, Fairchild Books, 3rd Edition, 2009.
- Donnellan, John, “Merchandise Buying and Management”, Fairchild Books, 3rd Edition, 2007.
- Jeremy A. Rosenau, David L. Wilson, “Apparel Merchandising - The Line Starts Here”, Fairchild Books, 3rd Edition, 2006.
- Hasty, Ronald W. “Retail management”, New York: McGraw-Hill, 1997.
- Ghosh, Avijit. “Retail management, Fort worth: Dryden Press, 2nd Edition, 1994.
- James C. Makens, Robert G. Roe, “Retail management: Satisfaction of consumer needs”, Chicago: Dryden, 3rd Edition, 1983.