

Unit 1 : Clothing Construction and Pattern Making

Elements and principles of apparel design. Methods of developing patterns – flat pattern making, draping and drafting. Standards of good fit, fitting problems and their remedies. Application of special sewing techniques in dress designing. Commercial processes in apparel industry. Factors influencing fashion movement. Fashion forecasting. Understanding consumer demands. Consumer decision processes. Socio-psychological aspects of clothing. Traditional costumes, textiles and embroideries of India and their influence on modern trends. Costumes of world. Computer Aided Fashion and Apparel Designing. Textile and apparel softwares for designing.

Unit 2 : Fibre Science

Textile chemistry – polymerization, bonding, reactive groups. Manufacture/ processing, structure and physical, chemical and biological properties of cotton, silk, wool and linen, rayon and synthetics. Bleaches –types and their commercial application. Special finishes applied to different textile such as wash-n-wear, water-proof, water repellent, shrink proof, durable press and carbonizing. Anti microbial finishes - for textiles for p/c blends. Quantitative estimation of blends and mixtures. Water, detergents – types and their influence on fabric performance. Textile auxiliaries.

Unit 3 : Dyeing and Printing

Study of dyes and pigments – composition, properties. Styles of printing. Dyeing and printing auxiliaries. Advanced dyeing and printing methods. Textile dyeing effluent and its impact - BOD and COD.

Unit 4: Textile and Apparel Quality Analysis

Importance and scope of quality testing in textiles and apparel. Textile testing standards and methods. Fibre, yarn and fabric testing equipment and methods. Quality standards, specifications and acceptable quality levels for apparel production.

Unit 5: Woven and Knitted Structures

Analysis of textile designs. Application of art elements and principles in textile designing. Classification and characteristics of yarns. Methods of fabric construction. Woven – variation of twills, leno, double cloth, dobby, jacquard, warp and weft figuring, terry pile weaving. Warp and circular knitting. Fabric defects and faults. Textile designing centres and their functions. Computer aided textile designing.

Unit 6: Textile and Apparel Industry

Role of textile industry in Indian economy. Status of textile industry in the last decade with reference to cotton, rayon, jute, silk, wool, garments and hosiery. Domestic and international consumption. Export and import policies of textiles and garments. Five Year Plans and their influence on textile and clothing related policies. Associations and research organizations related to textiles, garments, hosiery and consumer. Retailing and merchandizing of textiles and garments. Sales promotion techniques for textiles and garments e-retailing. Consumer education and protection.