

**CORE COURSE – IV :
ADVANCE FABRIC PREPARATION**

UNIT I

Preparatory process

Grey fabric – properties of grey fabric. Basic fabric preparatory processes - Singeing, Scouring, bleaching, mercerizing, desizing.

UNIT II

Dyeing Printing and Printing procedure

Classification of dyes and Stages of dyeing, Characteristics of dyes Suitable for different fibres. Direct, Vat, Sulphur, reactive, naphthol, acid and Basic and Disperse Dyes, Method of dyeing Natural Dyeing, Cotton, Silk, Wool and Synthetics with respective dyes, Dyeing of fibre blends, Natural dyeing- Sources, extraction, Mordants-definition, need, types, Mordanting techniques, Dyeing procedure, Definition types, Direct style-block stencil, screen, roller printing, Duplex printing, Rotary, Transfer printing. Discharge style Resist style-Batik, tie and dye, Minor printing methods- Flocking, Marbling, Blotch, Jetspray, Electrostatic, Photoprinting, Warp printing and Air brush printing, Preparation of printing paste – role of thickeners, types method of application. After treatment of printed fabrics

UNIT III

Computer colour analysis

Anatomy of a colour measuring instrument - spectrometer, Special employed in colour Systems, Softwares and hardwares for systems, Objective specification of colour: tristimulus values, The CIELAB system of specification of colour, Colour difference, The pass/ fail system, Shade Sorting, Strength analysis of dyes from solution. Assessment of whiteness of degree of yellowness, Computer Colour Matching.

UNIT IV

Textile Finishes

Finishes, types, Recent trends in finishes - Calendaring, tentering, stiffening, gabbing, Decanting, Beetling, Glazing, Schreinerizing, Embossing, Moiré, Ciering, Raising, Napping, Giggling, Shearing. Water Proofing, Water repellency, Sanforizing, antimicrobial finish, antcrease, Wash and Wear, fire proofing silk Weighing, Crepe and Crinkle effect. Softening, durable press.

UNIT V

Recent trends in wet processing

Study of enzymes, Role of enzymes for various textile processes-desizing, scouring, bleaching, softening, biopolishing, degumming.

Reference:

1. Shenai, V.A. Technology of Textile Processing, Chemistry for Dyes and Principles of Dyeing, A Sevak Publication, Bombay, 1993
2. Manivsakam.N. Treatment of Textile processing Effluents, Sakthi Publications, Coimbatore, 1995.
3. Gulrajani, M.L. Deepti Gupta, Natural dyes and their application to Textiles, Indian Institute of Technology, New Delhi, 1992
4. Prayag, R.S. Technology of Textiles printing, L.R. Prayag, Dharwad, 1995.
5. Shenai, V.A. History of Textiles Design, Sevak Publications, Mumbai, 1995.
6. Sule, A.D. - ATIRA, Computer colour analysis- Textile applications, New Age International Private Limited, New Delhi, 2002.
7. Nalankilli.G., Textile Finishing, SSM Publication, Komarapalayam.2000.