

Course Objectives

- To impart knowledge on woven fabric structure.
- To enable students to learn on development of design and draft for simple weaves,
- To gain knowledge about colour and weave effects.
- To impart knowledge about pile structures.

Course Outcomes

After successful completion of this course, the students should be able to

- Design various weave structures
- Analyze colour and weave effects
- Create new structures
- Draw pile and corded structures
- Illustrate special weaves

Course Content

Module-I (15 Hrs)

Classification of fabrics; concept of fabric structure; representation of weave; use of point paper, repeat of weave; drafts and peg plan; relationship between weave, draft and peg plan;

Basic Weaves: Method of construction, features and uses of plain weave and its derivatives, twill weave and its derivatives, Satin and sateen weaves and their derivatives.

Method of preparation, features and uses of Diamond weaves, Honey comb weaves-ordinary and brighton, Huck-a-back and Mockleno weaves, crepe weave.

Module-II (10 hours)

Cord Effects: Bedford cords - Plain and Twill faced, Wadded welts and piques – Wadded piques – Loose and fast back welts and piques – Spot figuring – Arrangement of figures – Drop Designs Half drop bases – Sateen system of distribution

Extra warp and extra weft designs: Extra warp and Extra weft figuring – with two colours. Backed fabrics: Warp and Weft backed – Reversible and Non-reversible.

Module-III (08 hours)

Pile fabrics : Warp pile, Fast wire pile – Terry weaves – Terry stripe and checks. Weft pile – Plain back and Twill back velveteen. Lashed pile, corduroy.

Double Cloth: Definition, features, classification and uses. Method of preparation of self stitched and centre warp and weft stitched double cloths, their salient feature and uses. Warp and weft Wadded double cloth. Brief idea on cross-woven designs and floral designs.

Module-IV (07 hours)

Special Weave: Gauze and Leno weaves. Russian cord – Net Leno – Madras Muslin structures. Damasks – Ply fabrics – Brocades – Tapestry – Swivel – Lappet – Designs for ornamentation of Fabrics. Self Twilling – Sectional – Inverted hook – Border jacquards.

Books Recommended

1. Groszicki Z J, "*Watsons Textile Design and Colour*", Newnes Buttersworth (1988).
2. Groszicki Z J, "*Watsons Advanced Textile Design*", Newnes Buttersworth (1989).
3. Klibbe J W, "*Structural Fabric Design*", Revised Edition, 1965, North Carolina State University.
4. Nisbeth H, "*Grammer of Textile Design*", 3rd Ed., D B Tarapore Wala sons and Co. (1994).
5. Gokarneshan N, "*Fabric Structure and Design*", New Age International, New Delhi (2004)