

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma in Textile Manufacturing

Semester: 3

Subject Code 332903

Subject Name FABRIC STRUCTURE – I

Sr. No.	Course content
1.	Representation of Weave on graph paper.
2.	Construction of basic weaves and its features : 2.1 Plain Weave. 2.2 Twill Weave. 2.3 Sateen. 2.4 Influence of twist direction of yarn on appearance of twill line.
3.	Modification of Plain, Twill & Sateen Weave : 3.1 Ornamentation and derivatives of Plain Weave. 3.2 Twill derivatives. - Pointed Twills - Broken Twills - Transposed Twills - Herringbone Twills 3.3 Regular and Irregular Satin & Sateen Weave & its features. 3.4 Crepe Weave.(all four methods of construction) 3.5 Cork-screw Weave.(Warp and Weft) 3.6 Diamond & Diaper Design. 3.7 - Honeycomb - Huckaback - Mock-Leno 3.8 Loom equipment required for above Weaves.
4.	Distorted Weave : 4.1 Warp distorted effect. 4.2 Weft distorted effect.
5.	Extra Warp & Extra Weft Figuring with Loom equipment.
6.	Yarn & Fabric calculation : 6.1 - Average count. 6.2 - Resultant count. 6.3 - Heald & Reed count. 6.4 - Weight of Warp & Weft.
7.	Selection of weave : 7.1 According to end use of the fabric. 7.2 Features and quality particulars of special structures like - Calico, Rubia, Voiles, Denim, Jean, Poplin, long cloth, Georgattee.

8.	Bedford Cord : Principle of Bedford cord & its features as. - Methods for producing cord effects. - Plain face Bedford cord structure. - Twill face Bedford cord structure. - Wadded Bedford cord structure. - Arranged on alternate pick. - Crepon Bedford cord.
9.	Welt & Pique structure & its features : a. Method for producing cord effect in pique structure. b. Ordinary welt structure. c. Weft wadded welt. d. Fast back welt.

LABORATORY EXPERIENCES :

Sr No	Name of Topic
1	Plain weave
2	Matt weave
3	Twill weave
4	Satin / Sateen
5	Crepe
7	HoneyComb
8	Huck-a-back
9	Mock Leno
10	Distorted weave
11	Diamond / Diaper
12	Cork Screw
13	Extra warp, Extra weft
14	Bed ford Cord - Plain face B.F.C - Twill Face B.F.C - Wadded Face B.F.C - Creapon Face B.F.C
15	Weft & Pique Structure- Welt - Wadded Welt - Fast back welt - Waved Pique

REFERENCE BOOKS:

1. Elementary Textile Design and Colour William Wattson
2. Advance Textile Design Wattson
3. Watson's Textile Design and Colour Z. Grosiky
4. Watson's Advance Textile Design Z. Grosiky
5. Grammer of Textile Design Nisbet
6. Weaving calculation R. Sengupt