

# GUJARAT TECHNOLOGICAL UNIVERSITY

## DIPLOMA PROGRAMME IN HOME SCIENCE

### Semester: 4

**Subject Name: WEAVING, PRINTING AND KNITTING**

Sr.No	Course content
1.	<b>WEAVING :</b> 1.1 Introduction of weaving process 1.2 Technology and objective of each process 1.3 Basic mechanism of weaving machinery (loom) 1.4 Fabric Manufacturing process on loom with passage on loom 1.5 Primary motions in looms. 1.5.1 Shading Motion 1.5.2 Picking Motion 1.5.3 Beat up motion 1.6 Secondary Motion 1.6.1 Let of motion 1.6.2 Take up motion
2.	<b>FABRIC STUCTURE:</b> Presentation of weave on graphs paper 2.1 Interlacing diagram 2.2 Cross section 2.3 Design 2.4 Draft 2.5 Peg Plan (lifting plan) . Construction of Basic weaves: 2.6 Plain weave & its derivations 2.7 Twill weaves 2.8 Sateen & satin weave
3.	<b>PRINTING:</b> 3.1 Introduction of color & classification of color and colorant (only charts) 3.2 Infinity of color (DYE) towards textile fiber (only chart) 3.3 Style Method of printing 1. Method of printing 2. Stencil printing 3. Block printing 4. Hand screen printing 5. Batik printing 6. Tie- Dry Printing (Bandhani).

4.	<b>KNITTING:</b>  <b>4.1 Material</b> Different types of knitting yarns Course and wools in knitted fabrics. Equipments used for hand knitting and characteristics
5.	<b>Hand Knitting</b> Abbreviations & symbols used in hand knitting Method of knitting basic, Garter, Moss, Stocking, Rib & Fancy Rib. Method of knitting fancy Stitch cable. Tuck, Slip, Hole Pattern. Fair-Isle. Preparation of children knitted garments.

### LABORATORY EXPERIENCES:

1. Demonstration of different types of looms.
2. Introduction of each part of loom.
3. Observation of primary and secondary motion of loom.
4. Preparation of prescribed weaves on graph paper.
5. Dyeing of cotton with direct dye
6. Dyeing of wool, nylon with acid dye. (if possible)
7. Dyeing of polyester with disperse dye (if possible)
8. Stencil printing
9. Block Printing
10. Screen Printing
11. Batik Printing
12. Tie-dye – 5 samples.

### REFERENCE BOOKS :

Sr. No.	Name of Books	Author
1.	Weaving Mechanism	By Banerjee Vol I-II
2.	Cotton Yarn Weaving	ATA (Ahmedabad Textile
3.	A Complete Guide to Knitting	Pam Dawasan
4.	Introduction to knitting	Marshall Cavendish
5.	Colourful Textiles of Rajasthan	Jaipur Printers Pvt. Ltd., Jaipur

