

**CORE COURSE – II : TEXTILE SCIENCE**

**UNIT 1**

Fibre Science: Introduction to Textile fibres - Fibre Identification & Classification – Brief manufacturing process of Lyocel. Utilities of fibres to specific end use applications. Fibre characteristics.

**UNIT 2**

Yarn Science: Manufacturing process by latest spinning methods- yarn properties & classification of yarns based on applications. Fancy and textured yarn, Sewing threads.

**UNIT 3**

Fabric Manufacture: Introduction & classification based on manufacturing processes – construction – weight and utilities- Application in apparel industry.

**UNIT 4**

Fabric weave construction: characteristics of plain – twill & satin weaves- effect of weave on fabric properties – graphical representation of weaves and modification, Extra warp, extra weft, Terry, Figure Terry etc. Influence of colour and texture in the manufacturing of apparels.

**UNIT 5**

Introduction to contemporary fabric manufacture – Shuttleless weaving – felting & non – woven technology – brief manufacturing stages – application to specific end uses.

**References:**

1. E.P.J. Gohl, Textile Science.
2. Eric Oxtoby, Spun Yarn Technology, Butterworth Publication.
3. Robinson and Mark, Woven Cloth Construction, Butterworth Publication.
4. Grociki.Z.J, Watsons Textile Design and Colour, Newness Butterworth, London.
5. Carbman B.P., Textiles: fibre to fabrics, Mc Graw Hill Inc., Singapore, 1986