PCTX4301 **FABRIC MANUFACTURE-II** (3-1-0)

Module – I (20 hours)
Secondary Motions and Auxiliary Motions of Plain loom: Take up and let-off motions used in power looms. Cloth wind-up system. Warp protector mechanism. Principle and working of loose reed and fast reed warp protector mechanism. Principle and working of weft fork motion and warp stop motion.

Functions and working principles of dobby and jacquards, electronic jacquards, Working of multiple box motions and Card saving device attachment

Module-II (10 hours)
Features of an automatic loom, Types of weft feeler mechanism (mechanical, electrical and photo electric type), Automatic cop changing mechanism, Automatic shuttle changing mechanism, Functions of shuttle eye and selvedge weft cutters, automatic weft replenishment-feelers, specialty of automatic shuttle

Module-III (15 hours)
Origin of shuttleless looms, Salient features and motions of shuttle less looms (Gripper, Rapier, Water Jet & Air Jet looms), Mechanisms of weft insertion by projectile, rapier, air jet and water jet. Techno-economics of shuttleless weft insertion systems. Weft accumulators and selvedges used in shuttle less looms.

Production Calculations related to various shuttle and shuttleless loom.

REFERENCE BOOKS:

1. Principle of Weaving , R. Marks and A. T. C. Robbinson
2. Weaving Machine, Mechanism, Management, M. K. Talukdar, P. K. Sriramulu & D. B. Ajgaonkar
3. Weaving Mechanism, N.N. Banerjee
4. Weaving Calculation, Sengupta
5. Weaving – Technology and Operations, A. Ormerod & W. S. Sondhelm
6. Cotton Weaving, V. Goordev
7. Weaving Tablets, TAI
8. Weaving: Conversion from yarn to Fabric, P. R. Lord & Mohamad