

# LESSON PLAN

## DEPARTMENT OF TEXTILE TECHNOLOGY, ITT, CHOUDWAR

**SUBJECT:** FABRIC MANUFACTURE I

**Periods:** 3 per week

**SEMESTER:** 3rd

**NAME OF FACULTY:** MANAS KUMAR SAHOO

**No. of weeks:** 15

Week	Period	Theory / Practical Topics
1 <sup>st</sup>	1 <sup>st</sup>	Objects of warp and weft winding
	2 <sup>nd</sup>	Types of winding (precession & non precession).
	3 <sup>rd</sup>	Features of warp winding machine
2 <sup>nd</sup>	1 <sup>st</sup>	Precision pirn winding machine
	2 <sup>nd</sup>	Non- precision winding machine
	3 <sup>rd</sup>	anti patterning device, knotters, splicers, electronic clearers
3 <sup>rd</sup>	1 <sup>st</sup>	slub catchers, yarn tensioners,
	2 <sup>nd</sup>	waxing, different types of traverse mechanisms)
	3 <sup>rd</sup>	Classification of yarn faults ,Package defects and their remedies
4 <sup>th</sup>	1 <sup>st</sup>	Modern developments in winding machine.
	2 <sup>nd</sup>	Calculations related to winding (related to traverse ratio)
	3 <sup>rd</sup>	winding angle, winding speed, yarn tensioner, production of machines.
5 <sup>th</sup>	1 <sup>st</sup>	Features of weft winding machine
	2 <sup>nd</sup>	Schiewter Pirn winding Machine
	3 <sup>rd</sup>	Discussion
6 <sup>th</sup>	1 <sup>st</sup>	Objects of warping
	2 <sup>nd</sup>	Types of warping machine (direct and sectional)
	3 <sup>rd</sup>	Explain passage of yarns through High Automatic beam warping.
7 <sup>th</sup>	1 <sup>st</sup>	Features of high speed direct and sectional warping.
	2 <sup>nd</sup>	(types of creel, stop motions, tensioners, different mechanisms at head stock)
	3 <sup>rd</sup>	Passage of materials through Sectional warping achine
8 <sup>th</sup>	1 <sup>st</sup>	Package defects and their remedies
	2 <sup>nd</sup>	Recent developments in warping machine.
	3 <sup>rd</sup>	Calculations related to warping
9 <sup>th</sup>	1 <sup>st</sup>	Discussion
	2 <sup>nd</sup>	Objects of sizing, Sizing ingredients-- their properties and functions.
	3 <sup>rd</sup>	Sizing ingredients-- their properties and functions.
10 <sup>th</sup>	1 <sup>st</sup>	Preparation of size paste— formulation, cooking equipment and storing.
	2 <sup>nd</sup>	Slasher sizing machine – general description ,
	3 <sup>rd</sup>	Different types of creel, Design of size box ,heating and
11 <sup>th</sup>	1 <sup>st</sup>	temperature control, level control, immersion rollers and squeeze rollers,
	2 <sup>nd</sup>	Application of size of cotton warp (types of sizing)
	3 <sup>rd</sup>	Drying equipments (cylinder drying, hot air drying
12 <sup>th</sup>	1 <sup>st</sup>	radiation drying, cooling of warp sheet, single end sizing.
	2 <sup>nd</sup>	The head stock (dry splitting, beam pressing roller, measuring and
	3 <sup>rd</sup>	The head stock (dry splitting, beam pressing roller, measuring
13 <sup>th</sup>	1 <sup>st</sup>	Modern developments in sizing.
	2 <sup>nd</sup>	Brief idea on drawing & denting.
	3 <sup>rd</sup>	Discussion
14 <sup>th</sup>	1 <sup>st</sup>	Explain passage of yarns through plain looms.
	2 <sup>nd</sup>	Define and Describe Shedding.
	3 <sup>rd</sup>	Classify & Explain Type of shedding devices and Type of Sheds.

15 <sup>th</sup>	1 <sup>st</sup>	Describe Picking and checking mechanism.
	2 <sup>nd</sup>	Explain Beating up mechanism
	3 <sup>rd</sup>	State Timing and setting of shedding, picking and beating.