

# LESSON PLAN

DEPARTMENT OF TEXTILE TECHNOLOGY, ITT, CHOUDWAR

SUBJECT: ADVANCE TEXTILE MANUFACTURE

Periods: 4/Week

SEMESTER: 6th

NAME OF FACULTY: Sri M Bhutia

No. of weeks/Sem as per SCTE&VT, Odisha Textile Tech/ Engg Syllabus: 15

Week	Class Day	Theory / Practical Topics
1st	1 <sup>st</sup>	Brief revision on conventional loom
	2 <sup>nd</sup>	Comparative study of shuttle and shuttle less loom
	3 <sup>rd</sup>	Introduction to non conventional loom
	4 <sup>th</sup>	Shuttle less loom and its importance in textile mill
2nd	1 <sup>st</sup>	Yarn preparation for shuttle less weaving
	2 <sup>nd</sup>	Yarn quality parameter for shuttle less loom
	3 <sup>rd</sup>	Need of shuttle less weaving
	4 <sup>th</sup>	Infrastructure requirement for modern weaving machine
3rd	1 <sup>st</sup>	Brief idea on rapier and projectile machine
	2 <sup>nd</sup>	Brief idea on fluid jet looms (Air jet)
	3 <sup>rd</sup>	Brief idea on fluid jet looms (water jet)
	4 <sup>th</sup>	Quality assessment for shuttle less loom
4 <sup>th</sup>	1 <sup>st</sup>	Revolution on loom automation
	2 <sup>nd</sup>	Basic concept of projectile loom
	3 <sup>rd</sup>	Weft package requirement for projectile
	4 <sup>th</sup>	Parts of projectile loom
5 <sup>th</sup>	1 <sup>st</sup>	Passage of material in a projectile weaving machine
	2 <sup>nd</sup>	Weft insertion mechanism for projectile loom
	3 <sup>rd</sup>	Working of match-cam beating
	4 <sup>th</sup>	Conventional selvedge vs non conventional selvedge
6 <sup>th</sup>	1 <sup>st</sup>	Brief idea on different types of non conventional selvedge
	2 <sup>nd</sup>	Types of selvedge in projectile weaving
	3 <sup>rd</sup>	Modern development in projectile weft insertion system
	4 <sup>th</sup>	Loom maintenance schedule
7 <sup>th</sup>	1 <sup>st</sup>	Brief idea about rapier weaving
	2 <sup>nd</sup>	Classification of rapier
	3 <sup>rd</sup>	Weft insertion mechanism on rapier
	4 <sup>th</sup>	Rapier weaving cycle
8 <sup>th</sup>	1 <sup>st</sup>	Weft insertion mechanism for rigid rapier
	2 <sup>nd</sup>	Passage of material in rapier loom
	3 <sup>rd</sup>	Concept of flexible rapier
	4 <sup>th</sup>	Weft insertion mechanism for single rapier
9 <sup>th</sup>	1 <sup>st</sup>	Weft insertion mechanism for double rapier
	2 <sup>nd</sup>	Brief idea on telescopic rapier

	3 <sup>rd</sup>	Loom maintenance
	4 <sup>th</sup>	Selvedge formation in rapier weaving
10 <sup>th</sup>	1 <sup>st</sup>	Advantages of rapier weaving
	2 <sup>nd</sup>	Concept of WIR
	3 <sup>rd</sup>	Comparative study of projectile and rapier weaving
	4 <sup>th</sup>	<b>Doubt clearing/ short fall class.</b>
11 <sup>th</sup>	1 <sup>st</sup>	Brief idea on fluid jet weft insertion
	2 <sup>nd</sup>	Concept of air jet weaving
	3 <sup>rd</sup>	Air quality parameter
	4 <sup>th</sup>	Weft quality for air jet weaving
12 <sup>th</sup>	1 <sup>st</sup>	Passage of material in air jet loom
	2 <sup>nd</sup>	Weft measuring device
	3 <sup>rd</sup>	Terms related to air jet pick insertion
	4 <sup>th</sup>	Brief idea on confuser, profile reed
13 <sup>th</sup>	1 <sup>st</sup>	Difference between reed and profile reed
	2 <sup>nd</sup>	Weft stop motion working and principle
	3 <sup>rd</sup>	Selvedge formation in air jet weaving
	4 <sup>th</sup>	Weft insertion cycle in air jet weaving
14 <sup>th</sup>	1 <sup>st</sup>	Pick insertion cycle
	2 <sup>nd</sup>	Loom maintenance
	3 <sup>rd</sup>	Concept of water jet weaving
	4 <sup>th</sup>	Water quality parameter
15 <sup>th</sup>	1 <sup>st</sup>	Passage of material in water jet loom
	2 <sup>nd</sup>	Weft insertion cycle in water jet weaving
	3 <sup>rd</sup>	Comparative study of water and air jet loom
	4 <sup>th</sup>	<b>Doubt clearing/ Revision</b>

Name: Pravat Kumar Sahoo  
PTGF, ITT, Choudwar.