

LESSON PLAN

DEPARTMENT OF TEXTILE ENGG, GOVT. POLYTECHNIC, BHADRAK
SUBJECT: Textile Chemical Processing - I Periods: 3 per week **SEMESTER: 3rd**
NAME OF FACULTY: BIRENDRA MEHER **ACADEMIC YEAR: 2022-2023**

Semester From date: 15.9.2022 To Date: 22.12.2022 No. of weeks: 15

Week	Class Day	Theory / Practical Topics
1st	1st	Pre-cleaning, Mending, Stamping, stitching , Shearing and cropping.
	2nd	Brief idea on Shearing and cropping M/c.
	3rd	Singeing, Different methods of singeing (Plate Singeing), drawbacks and advantages.
2nd	1st	Singeing, Different methods of singeing (Roller Singeing), drawbacks and advantages.
	2nd	Singeing, Different methods of singeing (Gas Singeing), drawbacks and advantages.
	3rd	Object & types of desizing
3rd	1st	Methods of desizing
	2nd	Mechanism of removal of starch.
	3rd	Efficiency of desizing,
4th	1st	Class for revision
	2nd	Objectives of scouring, mechanism of removal of impurities
	3rd	recipe and controlling parameters.
5th	1st	Scouring of textile
	2nd	Scouring of textile
	3rd	evaluation of scouring efficiency.
6th	1st	Class for revision
	2nd	Scouring of natural textiles.
	3rd	Scouring of man - made textiles.
7th	1st	Scouring of blended textiles.
	2nd	Degumming of silk.
	3rd	Classification of Kier
8th	1st	working mechanism of Industrial Kier
	2nd	working mechanism of Industrial Kier
	3rd	Souring
9th	1st	Class for revision
	2nd	Objectives of bleaching & classification of bleaching agents.
	3rd	Mecahnism of Hypochlorite, peroxide and chlorite bleaching.
10th	1st	Mecahnism of Hypochlorite, peroxide and chlorite bleaching.
	2nd	Field of application - Bleaching of cotton by suitable bleaching agent.
	3rd	Field of application - Bleaching of silk by suitable bleaching agent.
11th	1st	Field of application - Bleaching of wool by suitable bleaching agent.
	2nd	Field of application - Bleaching of man - made textile by suitable bleaching agent.
	3rd	Field of application - Bleaching of blended textile by suitable bleaching agent.
	1st	Principles and application of optical brightening and blueing agents.

12th	2nd	Class for revision
	3rd	Classification of dyes and pigments used in textile industry. Comparison between natural and synthetic dyes.
13th	1st	general properties of dyes (solubility, affinity toward, Properties), principles of dyeing.
	2nd	Dyeing of textiles of natural fibres [(Cotton by direct dye)]
	3rd	Dyeing of textiles of natural fibres [(Cotton by reactive dye)]
14th	1st	Dyeing of textiles of natural fibres [(Cotton by vat dye)]
	2nd	Dyeing of textiles of natural fibres [(Cotton by azoic & sulphur dye)]
	3rd	Dyeing of textiles of natural fibres [(Silk and Wool by acid dye)]
15th	1st	Working principles of Winch, Jet, Beam dyeing machine.
	2nd	Working principles of Hank and Package dyeing machine, Jigger, J-Box.
	3rd	Class for revision