

LESSON PLAN

DEPARTMENT OF TEXTILE TECHNOLOGY, ITT, CHOUDWAR

SUBJECT: FIBER SCIENCE

Periods: 3/Week

SEMESTER:3RD

NAME OF FACULTY: Pravat Kumar Sahoo

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

Week	Class Day	Theory / Practical Topics
1st	1 st	Introduction to textiles
	2 nd	Basic Concept of polymers, types of polymer
	3 rd	Study on degree of polymerization and functional system
2nd	1 st	Study of different polymerization methods
	2 nd	Brief idea on properties of fiber forming polymers
	3 rd	Concept of textile fiber and their properties
3rd	1 st	Classification of textile fiber
	2 nd	Manmade fiber vs natural fiber
	3 rd	Concept of filament and staple yarn/fiber
4 th	1 st	Identification of textile fibers
	2 nd	Brief idea on evaluation of textile fibers
	3 rd	Concept of natural polymer/fiber
5 th	1 st	Study on sources of natural fiber like plant/animal/minerals
	2 nd	Study of cotton fiber
	3 rd	Detail study on jute fiber
6 th	1 st	Study of linen fiber, extraction, properties
	2 nd	Brief idea on rarely used fibers like, hemp, bamboo etc
	3 rd	Study of pineapple, banana, kapok etc
7 th	1 st	Methods of identification of these fibers by feeling, burning, chemical method
	2 nd	Brief idea on fibers extracted from protein source
	3 rd	Study of wool fiber
8 th	1 st	Study of silk fiber
	2 nd	Other source of natural fiber
	3 rd	Advantages and disadvantages of natural fiber
9 th	1 st	Methods of identification of protein fiber
	2 nd	Doubt clearing class/ Revision
	3 rd	Brief idea on manmade fibers
10 th	1 st	Study of manmade fiber spinning
	2 nd	Concept of wet, melt and dry spinning
	3 rd	Study of manufacturing of viscose rayon fiber
11 th	1 st	Study of acetate rayon
	2 nd	Manufacturing of HMW and HT rayon fiber
	3 rd	Comparative study of different rayon fibers
12 th	1 st	Methods of manufacturing of synthetic fiber
	2 nd	Study on manufacturing of polyester fiber, properties
	3 rd	Study on manufacturing of polyethylene fiber, properties

13 th	1 st	Study on manufacturing of nylon 6
	2 nd	Study on manufacturing of nylon 66 with end use and properties
	3 rd	Study on manufacturing of acrylic fiber with end use and properties
14 th	1 st	Study on manufacturing of mod acrylic fiber with end use and properties
	2 nd	Brief idea on casen, milk fiber with end use and properties
	3 rd	Brief study on high performance fibers
15 th	1 st	Study of glass fiber, with end use and properties
	2 nd	Brief idea on carbon, spandax, nomex and kavlar fibers
	3 rd	Doubt clearing/ Revision

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