



Daffodil Polytechnic Institute, Institute Code: 50238

Lesson Plan – Academic session: February to June 2023

Subject Teacher : Sabina Yasmin (Instructor)
Subject Name : Natural Textile Fiber
Subject Code : 11312
Technology : Textile Technology
Semester : 3rd Textile & Apparel
Reference Book : Natural Textile Fiber (Publisher: RS/ Prime Publication)

Subject Aims:

Textiles are the second basic needs of human being. Clothing and textiles represent social customs and culture. In addition, textiles also impart comfort ability and aristocracy. As the characteristics of fibre properties directly related to the performance and care of textile product, therefore knowledge of textile natural fibre is essential for Diploma in Textile Engineering students. Furthermore, use of natural textile fibre has been increasing due to its eco friendliness, breathability and comfortability. Textile natural fibre are the basic elements of textile processing. Knowledge of natural textile fibre is required to obtain preliminary knowledge about their properties. It will also enhance clear idea about their usages in different fields of textiles.

Subject Outcome: After undergoing the subject, students will be able to:

- Describe different natural fibre of Textiles
- Identify various types of natural fibre
- Classify various types of natural fibre
- Synthesize the physical and chemical properties of natural fibre

Apply knowledge in the field of Textiles.

Marks	Grade Point	Letter Grade	Marks	Grade Point	Letter Grade
80>	4.00	A+	55-59	2.75	B-
75-79	3.75	A	50-54	2.50	C+
70-74	3.50	A-	45-49	2.25	C
65-69	3.25	B+	40-44	2.00	D
60-64	3.00	B	0-39	0.00	F

Mark Distribution (for 150 Marks)			
Theory Marks		Practical Marks	
Midterm	20	PC	00
Class test	10	PF	00
Quiz test	10	-	-
Final	60	-	-
Total	100	Total	00

Date	Lecture	Chapter	Class/Lab Supporting Equipment's	Learning Area	Learning Outcome
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	01	1. Understand the Textile Fiber	Book, marker pen etc	1.1 Define fibre 1.2 Define Textile fibre 1.3 Describe the construction model of textile fibre 1.4 Distinguish between fibre and textile fibre	1.Understand properly the natural textile fiber
	02	2.Understand the Cotton fiber	Marker, White board	Cotton Fibre 2.1 Describe the harvesting process of cotton fibre 2.2 Define grading 2.3 Explain different grading of cotton fibres 2.4 Mention the points to be considered before grading 2.5 Define ginning 2.6 Classify ginning 2.7 Describe different types of ginning process with sketch 2.7 Explain the morphological diagram of cotton fibre 2.8 Explain the chemical structure and chemical composition of cotton fibre 2.9 Describe the physical and chemical properties of cotton fibre Mention the defects of cotton fibre.	Understand cotton fiber

Date	Lecture	Chapter	Class/Lab Supporting Equipment's	Learning Area	Learning Outcome
	03	3.Understand the jute fiber		<p>Jute Fibre</p> <ul style="list-style-type: none"> • Define bast fibres • Classify jute fibre based on growing area in Bangladesh. • Explain the morphological diagram of jute fibre • Explain the chemical structure and chemical composition of jute fibre • Describe the retting process of jute fibre • Discuss the grading of jute fibre • Explain the effect of lignin in jute fibre • Mention the defects and causes of jute fibre • Describe the physical & chemical properties of jute fibre <p>3. Mention the end uses of jute fibre.</p>	Understand jute fiber
	04	4.Understand the calculation of sizing	Marker, White board	<p>Flax Fibre</p> <p>4.1 Describe the historical background of flax fibre</p> <p>4.2 Discuss the harvesting and retting of flax fibre</p> <p>4.3 List the points to be considered before grading</p> <p>4.4 Mention the defects and causes of flax fibre.</p> <p>4.5 Classify flax fibre</p> <p>4.6. State the chemical composition of flax fibre</p> <p>4.7. Describe the physical & chemical properties of flax fibre</p> <p>4.8 Mention the end uses of flax fibre</p>	Understand the flax fiber
	05	5.Understand the Hemp fiber	Marker, White board	<p>Hemp Fibre</p> <p>5.1 Describe the harvesting and retting process of hemp fibre</p> <p>5.2 Classify hemp fibre</p> <p>5.3 Mention the chemical composition of</p>	Understand properly the hemp fiber

				<p>hemp fibre</p> <p>5.4 Describe the physical & chemical</p> <p>5.5 properties of hemp fibre</p> <p>Mention the end uses of hemp fibre.</p>	
	06	Quiz Test	Exam paper, Printed question paper etc.	Chapter 2,3 (Theoretically and practically based)	
	07	06. Understand the Sisal and pineapple Fiber	Marker, White board	<p>Sisal and Pineapple Fibre</p> <p>6.1 State characteristics of sisal fibre</p> <p>6.2 Mention the chemical composition of sisal fibre</p> <p>6.3 Describe the physical and chemical properties of sisal fibre</p> <p>6.4 Mention the end uses of sisal fibre</p> <p>6.5 State Characteristics of pineapple fibre</p> <p>6.6 Discuss the chemical composition of pineapple fibre</p> <p>6.7 Explain the physical and chemical properties of pineapple fibre</p> <p>6.8 Mention the application of pineapple fibre.</p>	Understand properly Sisal and pineapple fiber
	08	Class Test	Exam paper, Printed question paper etc.	Chapter 4,5 (Theoretically and practically based)	
	09	07.Understand the Banana fiber	Marker, White board	<p>Banana Fibre</p> <p>7.1 State the chemical composition of banana fibre</p> <p>7.2 List the physical properties of banana fibre</p> <p>7.3Mention the end uses of banana fibre</p>	Understand properly the banana Fiber

	10		Mid Term Examination		
			Mid term exam 1 to 6 chapter		
	11	08.UNDERSTAND THE Coir Fiber.	Marker, White board	Coir Fibre 8.1 Define Coir 8.2 Discuss the extraction process of Coir Fibre 8.3 Mention the chemical composition of coir fibre 8.4 Describe the physical properties of coir fibre 8.5 Describe the Product of Coir fibre 8.6 Mention the end uses of coir fibre..	Importance of Coir Fiber

Date	Lecture	Chapter	Class/Lab Supporting Equipment's	Learning Area	Learning Outcome
	12	09. UNDERSTAND Wool fiber.	Marker, White board	Wool Fibre 9.1 Describe the Collection process of wool fibre 9.2 State the chemical composition of wool fibre 9.3 Classify wool fibre 9.4 Mention the physical and chemical properties of wool fibre 9.5 Mention the grading of wool fibre 9.6 Mention the end uses of wool fibre..	Understand properly the wool fiber
	13	10. Understand the silk fiber	Marker, White board	Silk Fibre 10.1 Describe the historical background of silk fibre 10.2 Describe the production process of silk fibre 10.3 Classify silk fibre 10.4 Mention the chemical composition of silk fibre 10.5 List the physical & chemical properties of silk fibre 10.6 Differentiate between wool and silk fibre 10.7 Mention the end uses of silk fibre.	Understand properly the budgeting, gearing, cost control system and production method of different loom and knitting calculation and fabric calculation

	14	Review Chapter 1&2	Book,marker pen	All Question of Chapter 1&2	Reviewing the Chapter according to student's problem.
	15	Review Chapter 3&4	Book And Notebook	All Question of Chapter 3&4	Reviewing the Chapter according to student's problem.
	16	Quiz Test	Exam paper, Printed question paper etc.	Chapter 9 (Theoretically based)	
	17	Review Chapter 5&6	Book,marker pen,graph board	All Question of Chapter 5&6	Reviewing the Chapter according to student's problem.
	18	Class Test	Exam paper, Printed question paper etc.	Chapter 10 (Theoretically and practically based)	
	19	Review Chapter 7&8	Book,marker pen,graph board	All Question of Chapter 7&8	Understanding the Chapter according to student's problem.
	20	Review Chapter 9&10	Book,marker pen,graph board	All Question of Chapter 9&10	Understanding the Chapter according to student's problem.
	21	Review Chapter All	Book,marker pen, board	All Question of Chapter 1 to 10	Understanding the Chapter according to student's problem.
	22	Review Chapter All	Book,marker pen, board.	All Question of Chapter 1 to 10	Understanding the Chapter according to student's problem.
Date	Lecture	Chapter	Class/Lab Supporting Equipment's	Learning Area	Learning Outcome
	23	Model Test	Exam paper, Printed question paper etc.	Chapter1-10 (Theory)	
Semester Final Examination					

