# Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Shri Vaishnav Institute of Textile Technology

# Choice Based Credit System (CBCS) in Light of NEP-2020 Generic Elective for PG Courses

(2021-2023)

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	Т	P	CREDITS
GPTX101	GE	TEXTILE FIBRE	60	20	20	-	ı	3	0	0	3

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit. \*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

### **Course Educational Objectives (CEOs):**

- 1. To provide the basic knowledge of principle and manufacturing process of natural and manmade fibre.
- 2. To impart the knowledge of various properties of different natural and manmade fibre.

### **Course Outcomes (COs):**

After completion of this course the students are expected to be able to demonstrate following knowledge, skills and attitudes.

The students will be able to

- 1. Comprehend the correct manufacturing process of various natural and manmade fibre.
- 2. Identify different natural and manmade fibre accurately.
- 3. Demonstrate their knowledge on various fibres and their properties.

## Syllabus:

#### **UNIT I Introduction to Fibres and Natural Cellulosic Fibres**

10 Hrs.

General classification of fibres, Structure, properties and uses of cotton, Structure, properties and uses of bast fibres

### **UNIT II Natural Protein Fibres**

9 Hrs.

Structure, properties, uses and brief description of natural protein fibres: wool and silk fibres.

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## UNIT III Introduction to Polymers and Synthetic Regenerated Fibres 8 Hrs.

Basic concept of polymer, their classification, methods of polymerization, molecular weight and its measurement, distribution and importance, Basic idea of manufacturing process, properties and use of regenerated fibres e.g. rayon.

### UNIT IV Synthetic Manmade Fibres: Polyester and Nylon

7 Hrs.

Basic idea of manufacturing process, properties and use of man-made fibres e.g. rayon, nylon, polyester.

### **UNIT V** Different Fibre Characterization Techniques

8 Hrs.

Basic idea of manufacturing process, properties and use of man-made fibres: acrylic, polyolephins.

### **Text Books:**

- 1. Manufactured Fibre Technology, Gupta, V.B., Kothari, V.K., Springer, 1997.
- 2. Textile Science: An Explanation of Fibre Properties, Gohl, E. P. G., Vilensky, L. D., CBS Publisher, 1984.

### References:

- 1. Manmade Fibres Moncrief, R.W., Halstead Press, New York, 1975.
- 2. Production of Synthetic Fibres Vaidya, A. A., Prentice Hall of India, Private Limited, New Delhi, 1998.