Technology of Textiles		Semester	I
Course Code	**1BETX105/205**	CIE Marks	50
Teaching Hours/Week (L:T:P: S)	3-0-0	SEE Marks	50
Total Hours of Pedagogy	40-45	Total Marks	100
Credits	03	Exam Hours	03
Examination type (SEE)	Theory		

Course outcome (Course Skill Set)

At the end of the course, the student will be able to:

1.Basic Knowledge of textiles, Method involved in fibre to yarn formation
2. Textile fiber types and properties and cultivation
3.Basic method of yarn count calculations and spinning techniques
4. Understand the method of yarn and fabric formations
5. Understand the technique of chemical processing and Garment and Textile testing

Module-1

Introduction to textiles. Introduction to Textile Fibres Textile Position in India with respect to world in textile production. Flow chart for the conversion of fibres to yarn and fabric

Number of Hours:08

Module-2

Classification of textile fibres. Brief introduction basic Properties of Natural and Man Made fibres Sequence of operation in textile industry. Briefly introduction to natural fiber cultivation

Number of Hours:08

Module-3

Basic Textile fiber forming polymers. Different types of spinning techniques. Yarn numbering system Number of Hours:08

Module-4

Brief introduction to cotton Yarn Manufacturing process (NO Passage and calculation) Brief introduction to Fabric Manufacturing process (NO Passage and calculation) Study of basic weaves.

Number of Hours:08

Module-5

Introduction to wet processing : Introduction to Garment Manufacturing process. Introduction to Textile Testing. Number of Hours:08

Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):

Text books:

1. **Manmade fibre science and Technology,** Mark Atlas, Vol.I& II, Wiley, NT 1967.
2. **Fundamentals of fibre formation,** Ziabicki A. Wiley NY 1976.
3. **Formation of synthetic fibres,** Walczalk.K. Gordon & Sci. London 1977.

Reference books / Manuals:

1. Fiber to Fabric ,Bernard P Corbman, MC.GRAW-HILL publication
2. Manual of Cotton Spinning Coulson. A.F.W.(Ed.),Vol. I to IV Textile Institute, Manchester,1958
3. Series on Textile processing Zaloski.S ,The Institute of Textile Technology, USA1983
4. Technology of short-staple spinning, Klein. W. Vol .I, II, III and IV, Textile Institute

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Web links and Video Lectures (e-Resources):

1. NPTEL course on Textile fibres
2. NPTEL course on Manufactured Fibre Technology

Teaching-Learning Process (Innovative Delivery Methods):

The following are sample strategies that educators may adopt to enhance the effectiveness of the teaching-learning process and facilitate the achievement of course outcomes.

1. Technical Seminar
2. Technical Quiz

Assessment Structure:

The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) and the Semester End Examination (SEE), with each carrying 50% weightage.

- To qualify and become eligible to appear for SEE, in the **CIE**, a student must score at least **40% of 50 marks**, i.e., **20 marks**.
- To pass the **SEE**, a student must score at least **35% of 50 marks**, i.e., **18 marks**.
- Notwithstanding the above, a student is considered to have **passed the course,** provided the combined total of **CIE and SEE is at least 40 out of 100 marks**.

Continuous Comprehensive Assessments(CCA):

CCA will be conducted for 25 marks. It is recommended to include a maximum of two learning activities aimed at enhancing the holistic development of students. These activities should align with course objectives and promote higher-order thinking and application-based learning.

Learning Activity -1: (Marks- 15)

Learning Activity -2 (optional):(Marks- 10)

Rubrics for Learning Activity(Based on the nature of learning activity, design the rubrics for each activity):

	Superior	Good	Fair	Needs Improvement	Unacceptable
Performance Indicator- 1 (CO/PO Mapping)					
Performance Indicator-2 (CO/PO Mapping)					
...					
Performance Indicator-n(CO/PO Mapping)					

Suggested Learning Activities may include (but are not limited to):

- Course Project

- Case Study Presentation
- Programming Assignment
- Tool/Software Exploration
- Literature Review
- Open Book Test (preferably at RBL4 and RBL5 levels)
- GATE-based Aptitude Test
- Assignment (at RBL3, RBL4, or RBL5 levels)
- Any other relevant and innovative academic activity
- Use of MOOCs and Online Platforms

Suggested Innovative Delivery Methods may include (but are not limited to):

- Flipped Classroom
- Problem-Based Learning (PBL)
- Case-Based Teaching
- Simulation and Virtual Labs
- Partial Delivery of course by Industry expert/ industrial visits
- ICT-Enabled Teaching
- Role Play