NOTIFICATION

No. 130 /2023 Date : 21 /08/2023

Subject: Revised Course Objectives & Course Outcomes of Semester III & IV of Bachelor of Textile Engineering (B.Text. Engg.) (C.B.C.S.) as per A.I.C.TE. model Curriculum.

It is notified for general information of all concerned that the authorities of the University have accepted to implement revised Course Objectives & Course Outcomes of Semester III & IV of Bachelor of Textile Engineering (B.Text. Engg.) (C.B.C.S.) as per A.I.C.TE. model Curriculum to be implemented from the academic session 2023-2024 onwards as given below:

Sd/-
(Dr.T.R.Deshmukh)
Registrar

REVISED COURSE OBJECTIVES & COURSE OUTCOMES of B.TEXT. ENGG. SEM. III & IV [C.B.C.S.]

3 TX 01 TEXTILE FIBRE – I

Course objectives:
1) To gain basic knowledge about classification of textile fiber and their essential and desirable properties.
2) To gain the knowledge about various natural textile fibers.
3) To understand the various methods of textile fibre analysis.

Course outcomes:
After the completion of Textile Fibre –I course, students will able to:
1) Classify different textile fibres
2) Explain physical, chemical and biological properties of cotton fibre
3) Compare physical, chemical and biological properties of jute, flax, hemp and ramie fibre
4) Discuss physical, chemical and biological properties of wool fibre
5) Summaries the physical, chemical and biological properties of silk fibre
6) Analyze the structure of different fibres.

3TX02 YARN MANUFACTURING – I

Course Objectives:
1. To gain basic knowledge about various blow-room, carding, drawing and combing processes.
2. To gain the knowledge about modern aspects of blow room, carding, drawing and combing processes.
3. To understand various parameters influencing performance of preparatory spinning processes.

Course Outcomes:
After the completion of Yarn Manufacturing-I course, students will able to:

1. Explain the concept of ginning process and description regarding ginning machines.
2. Discuss blow-room process and description regarding blow-room machines.
3. Describe carding process and description about carding machines.
4. Summarize drawing process and description about draw frame machines.
5. Express concept of combing preparatory and description regarding combing preparatory machines.
6. Memorize combing process and description regarding combing machines.

3TX03 FABRIC MANUFACTURING – I

Course objectives:
1) To gain basic knowledge about winding, warping and sizing processes.
2) To gain the knowledge about modern aspects of winding, warping and sizing processes
3) To understand various key parameters of influencing performance of winding, warping and sizing processes**.**

Course Outcomes:
After the completion of Fabric Manufacturing –I course, students will able to:

1) Explain the concept of winding process and description regarding high speed winding machines.
2) Summarize the technical features and operating principles of automatic winding machines
3) Explain about the concept of warping process and description about high speed warping machines
4) Describe the technical features and operating principles of automatic warping machines
5) Describe the concept of sizing and description of sizing machines
6) Discuss the various control systems and size paste ingredients used in sizing process.

3TX04 TEXTILE TESTING - I

Course Objectives:
1) To gain basic knowledge about various statistical techniques used in textile testing field
2) To learn the various fibre characteristics evaluation and testing methods.
3) To understand the evaluation of basic yarn properties and testing methods.

Course Outcomes:

After the completion of Textile Testing -I course, students will able to:
1) Apply statistical tools in textile testing field
2) Explain the test of significance used in textile testing
3) Perform the measurement and evaluation of basic fibre properties
4) Perform the measurement and evaluation of fibre moisture
5) Demonstrate the measurement and evaluation of fineness and maturity of fibre
6) Define the sample selection technique used in textile testing.

3 TX 05 THERMAL SCIENCE AND AIR CONDITIONING

Course Objectives:

1. To understand the properties of steam and use of boilers in textile industries.
2. To understand the basic knowledge about fluid dynamics and its application in textile industry.
3. To understand the basic knowledge about refrigeration, air conditioning and their applications in textile industries.

Course Outcomes:
After the completion of Thermal Science and Air Conditioning course, students will able to:

1. Explain the properties of steam, its types and applications in textile field.
2. Discus the construction and working of different types of steam boilers, their accessories and mountings.
3. State the concept of fluid dynamics and fluid flow applications in textile industries.
4. Describe the function of different types of compressors and their applications in textile industry.
5. Describe the function of different types of pumps and refrigeration systems.
6. Express the function of the air conditioning system and their applications in textile industries.

SEMESTER – IV

4 TX 01 TEXTILE FIBRE – II

Course Objectives:
1) To gain basic knowledge about polymers and their extrusion methods.
2) To gain the knowledge about major synthetic fibres and their properties.
3) To understand texturing and its various methods.

Course Outcomes:
After the completion of Textile Fibre –II course, students will able to:

1) Discuss various extrusion methods used in production of synthetic fibres
2) Explain the manufacturing and properties of regenerated fibres
3) Explain the manufacturing and properties of polyamide and polyester fibres
4) Explain the manufacturing and properties of polyacrylonytrile, polyvinyl and polyethylene fibres
5) Describe concepts of mechanical, thermal and optical properties of fibers
6) Summarize the various methods of texturing.

4TX02 YARN MANUFACTURING – II

Course Objectives:
1. To gain basic knowledge about speed frame, ring spinning and doubling processes.
2. To gain the knowledge about modern aspects of speed frame, ring spinning and doubling processes.
3. To understand various parameters influencing performance of speed frame, ring spinning and doubling processes.

Course Outcomes:
After the completion of Yarn Manufacturing-II course, students will able to:

1. Explain the concept of speed frame process and description regarding speed frame machines.
2 Explain the concept of ring spinning process and description regarding ring spinning machines.
3. Explain the concept of ring spinning process and description about ring spinning machines.
4. Discuss the concept of spinning geometry and spinning triangle.
5. Describe the concept of doubling process and description regarding doubling machines.
6. Summarize different methods of fancy yarn manufacturing.

4TX03 FABRIC MANUFACTURING – II

Course Objectives:

1) To gain basic knowledge about fabric formation by weaving processes.
2) To gain the knowledge about technical features of automatic weaving and dobby shedding machines.
3) To gain the knowledge about jacquard shedding, fabric faults and machines defects.

Course Outcomes:
After the completion of Fabric Manufacturing –II course, students will able to:

1) Express the concept of fabric forming by weaving process.
2) Demonstrate the various weaving mechanisms.
3) Analyze the kinematics, energy utilization and productivity aspects of shuttle weaving machines.
4) Recall about the dobby shedding principle and it related machineries.
5) Describe the jacquard shedding principle and related machineries.
6) Identify and analyze the fabric faults and loom defects.

4TX04 TEXTILE TESTING — II

Course objectives:
1) To gain knowledge about evaluation and testing of basic fabric properties.
2) To gain knowledge about evaluation and testing of comfort properties of fabric
3) To gain knowledge about evaluation and testing of basic garment properties.

Course outcomes:
Alter the completion of Textile Testing-II course, students will able to:
1) Evaluate the serviceability of textile fabric
2) Demonstrate the testing and evaluation of fabric dimensional stability
3) Explain the testing and evaluation of fabric low stress mechanical properties.
4) Explain the testing and evaluation of fabric thermal properties.
5) Explain the testing and evaluation of garments
6) Summaries the quality evaluation process of garments.

4TX05 GARMENT MANUFACTURING TECHNOLOGY

Course Objectives:

1. To provide the understanding about the scenario of industrial apparel sector.
2. To provide the knowledge about various production processes involved in garment manufacturing.
3. To provide the knowledge about the various industrial production systems and use of CAD and CAM in garment industry.

Course Outcomes:

After completion of the course students will be able to:

1. Explain the apparel industry scenario in form of its structure, types, size, labor, products etc.
2. Discuss the various technological aspects and production process involved in pattern making and sizing.
3. Discuss the various technological aspects and production process involved in cutting and sewing operations.
4. Discuss the various technological aspects and production process involved fusing process.
5. Discuss the various technological aspects and production process involved in garment finishing and inspection.
6. Analyze the various production systems and use of CAD-CAM in garment manufacturing.

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