



# **Textile Lab Facilities**

**at**

# **Department of Textile**

# **Engineering**

## **UET Lahore, FSD Campus**

# Labs: Spinning

Sr. No	Equipment Name
1-10	Mini Spinning lab, Complete Range-10 equipment (Pakistan's first and only such lab)
	Pilot Scale Spinning Machine
1	Bale Breaker
2	Step Cleaner
3	Scutcher
4	Card
5	Drawing Machine
6	Simplex
7	Ring

# Labs: Mini and Pilot Spinning



# Labs: Weaving & Knitting

Sr. No	Equipment Name
1	Sectional Warping Machine
2	Sizing Machine
3	Shuttle Loom
4	Sulzer Loom
5	Air jet Loom
6	Hand Loom
7	Flat Knitting
8	Circular Knitting
9	Microscope
10	Pick Counters & Magnifying Lenses
11	Digital Pick Counter
12	Inspection Table
13	Winding Machine
14	Wrapping Square



# Labs: Weaving



# Labs: Textile Wet Processing

Sr #	Equipment Name
1	Padder (Horizontal& Vertical)
2	Baker & Universal Steamer
3	Stenter
4	Pad Steam
5	Jigger dyeing machine
6	Exhaust dyeing machine
7	Washer
8	Tumble Dryer
9	Spectrophotometer
10	Limiting oxygen index (LOI) objective method
11	Flat Screen Printing Machine
12	Pneumatic Padder
13	Conditioning Chamber
14	Viscometer
15	Light box
16	Magnetic stirrers
17	Water bath (2 no.)
18	Digital pH meter, glassware, range of dyes and chemicals
19	Nano bubble machine
20	Waterless dyeing and finishing machine
21	Foam coating machine



# Labs: Textile Wet Processing



# Labs: Testing and Quality Control

1	Abrasion and Pilling Machine
2	Tear Strength Tester
3	Tensile Strength Tester
4	Cotton Fineness with weight box
5	Microscope
6	Light Box
7	Color matching box
8	Wrap wreel
9	GSM Cutter
10	Yarn Examination machine
11	Electronic Yarn Counter
12	Thickness Gauge
13	Air Permeability Tester
14	Burst Strength Tester
15	Video Analyzer
16	Oil and water repellency kit
17	Double Comb Sorter



# Labs: Testing and Quality Control...

18	Trash Analyzer for Cotton
19	Spectrophotometer (Portable)
20	Electronic Wrap Reel
21	Lea Strength Tester
22	Yarn Tension Meter
23	Yarn Twist Tester
24	Single Yarn Strength Tester
25	Scanning Electron Microscope (upto 6 nano meter)
26	Crease Recovery Tester
27	Wrinkle Recovery Tester
28	Spray Rating Tester (Shower Test)
29	Crock Meter
30	Bending Length Tester
31	Light fastness tester
32	Perspirometer
33	Spectrophotometer (Reflectance & Transmittance)
34	Colorimeter

# Labs: Testing and Quality Control



# **Labs: Textile Chemical Synthesis and Polymerization Lab**

<b>Sr. No</b>	<b>Equipment Name</b>
<b>1</b>	<b>High temperature high pressure polymerization unit</b>
<b>2</b>	<b>General polymerization unit</b>
<b>3</b>	<b>Foam generator</b>
<b>4</b>	<b>High temperature (&gt;1200°C) furnace with gases feed option</b>
<b>5</b>	<b>Digital temperature control stirrer</b>
<b>6</b>	<b>Oxygen and nitrogen assisted polymerization unit</b>



# Labs: Textile Chemical Synthesis and Analysis





# Labs: Garment & Pattern Lab

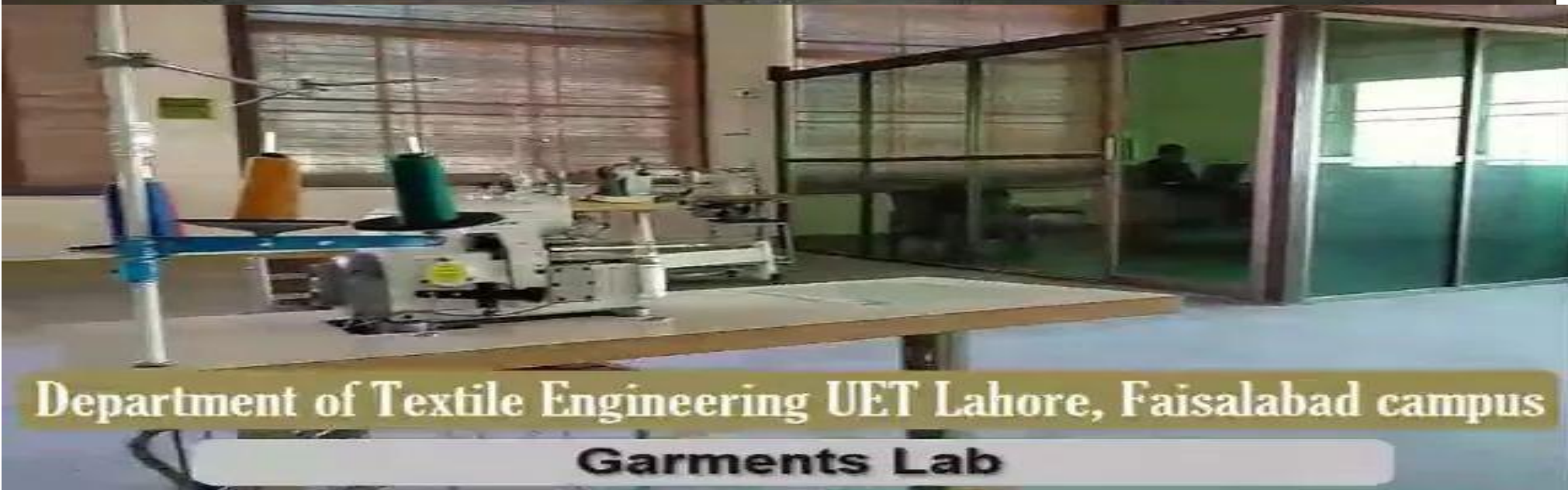
Sr. No	Equipment Name
1	Singe needle lockstitch machine
2	Overlock swing machine
3	Three needle sewing machine
4	Interlock sewing machine
5	Single needle lock stitch machine, direct drive
6	Single needle high speed industrial sewing machine with panel
7	AccuMark Gerber Software (5)
8	Pattern tables (10)
9	Pattern cutting software
10	Garment mannequin
11	Pattern drawing and cutting tools
12	Cloth cutting machine
13	Heat press machine with temperature controller
14	Others (Japanese ruler, L Square ruler, Curve Stick, Triangular ruler of square set, Measuring tapes, Scissors, Pattern Sheets, Tracing wheels, Paper cutter, Machinery Toolbox)

# Labs: Garment & Pattern Lab



**Department of Textile Engineering UET Lahore, Faisalabad campus**

**Pattern Cutting & Drawing Lab**



**Department of Textile Engineering UET Lahore, Faisalabad campus**

**Garments Lab**

# Labs: Digital Printing Lab

Sr. No	Equipment Name
1	Digital printing machine with software and fabric heating system for advance printing and finishing
2	Digital printing machine (capable of using reactive inks & pigments) suitable for fabric and garment digital printing
3	Pilot scale digital printing machine

# **Labs: 14. Agro Waste & Bast Fiber Extraction Lab**

<b>Sr. No</b>	<b>Equipment Name</b>
<b>1</b>	Fiber decorticator machine with various attachments for banana, okra, hemp, corn etc.
<b>2</b>	Stem pressing machine
<b>3</b>	Chemical softening and extraction setup
<b>4</b>	Bast fiber combing machine



# Labs: Textile Nano Materials Lab

Sr. No	Equipment Name
1	Particle size analyzer
2	Filtration assembly
3	Viscometer
4	Oven
5	pH meter
6	Stirring hot plate
7	Others (weight balance, light box, thermabath, glassware etc)

# Labs: Textile Computer Lab

Sr. No	Equipment Name
1-34	Computers with following textile related software's along with typical MS office
	Gerber (Garments, pattern making & 2D apparel designing)
	Chemdraw (Textile processing, structure and mechanism of dyes, chemicals and fabrics)
	CLO 3D (Garment, 3D designing with true to life garments visualization)
	DB weave (Weaving, fabric design and modeling)
	Minitab ()Spinning and other textile data analysis
	Texgen (Weaving and fabric designing)

# Labs: Smart Textile Lab

Sr. No	Equipment Name
1	Advance fabric potentiostat for measuring current and conductivity (For fabric and solutions)
2	Smart textile system
3	Smart textile system from waste
4	Smart textile with GPS and other sensors along with its testing
5	Bomb Calorimeter (Suitable for measuring calorific value of solid and liquid energy source, it can measure the calorific value of the source from waste and by product of smart textile)

# Labs: Textile Waste Recycling Lab

Sr. No	Equipment Name
1	High Temperature Two Zone Furnace with Gas Feeding
2	Scrubber
3	Collection & reaction chamber with controlled environment
4	Aspirator
5	Pulverizer
6	Mortar and pestle
7	Digital fine balance
8	Others (Composite molds, pH strips, glassware, range of chemicals)
9	Colorimeter
10	Digital vernier caliper
11	Digital micrometer