

# **PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY**

## **Department of Textile Engineering**

**Faculty Name: - Ms. Astha**

**Subject Name: - Technical Textile II**

**Year/Semester: - 4<sup>th</sup>/8<sup>th</sup>**

**Subject Code: - PCC-TEX-402A**

### **Lesson Plan**

<b>Unit No.</b>	<b>Topic of the Lecture</b>	<b>Hours</b>	<b>Total</b>
<b>Unit I</b>	Introduction and classification of Medical Textiles	1	16
	Fibres used for medical applications.	1	
	Medical Drapes and Linen	1	
	Implantable – sutures, soft tissue implants, hard tissue implants, vascular implants	3	
	Non-implantable – surgical dressing	1	
	Bandages	1	
	Extracorporeal devices	2	
	Tissue Engineering	1	
	Healthcare and Hygiene products	2	
	Super absorbent polymers	2	
	Hydrogels	1	
<b>Unit II</b>	Different types of protective clothing	1	12
	Functional requirements of defense clothing including	2	
	Ballistic protection	2	
	Parachute	2	
	Temperature and flame retardant clothing	2	
	Chemical and Biological protective clothing	2	
	Water proof breathable fabric	1	
<b>Unit III</b>	Introduction to Smart Technology for textile and clothing	3	15
	Areas of application of smart textile	1	
	Pathogen barrier fabric, fibres used for pathogen barrier application	2	
	Clothing for extreme climatic conditions	3	
	wearable technology for snow clothing, high altitude clothing	3	
	Electromagnetic radiation protective clothing	3	
<b>Unit IV</b>	Sportech – Sport uniforms, sporting equipments, textiles in sport surfaces	2	9
	Agrotech – General applications and fibres used in agriculture, horticulture, fishing and animal husbandry	2	
	Buildtech – Architectural membranes	2	
	hoardings and signages, awnings and canopies	1	
	Packtech. Ropes and cordages. Canvas covers and tarpaulins	2	