



# **TRINITY COLLEGE FOR WOMEN NAMAKKAL**

**DEPARTMENT OF COSTUME DESIGN & FASHION**

**FABRIC MANUFACTURING  
19UCD03-ODD SEMESTER**

**Presented by**

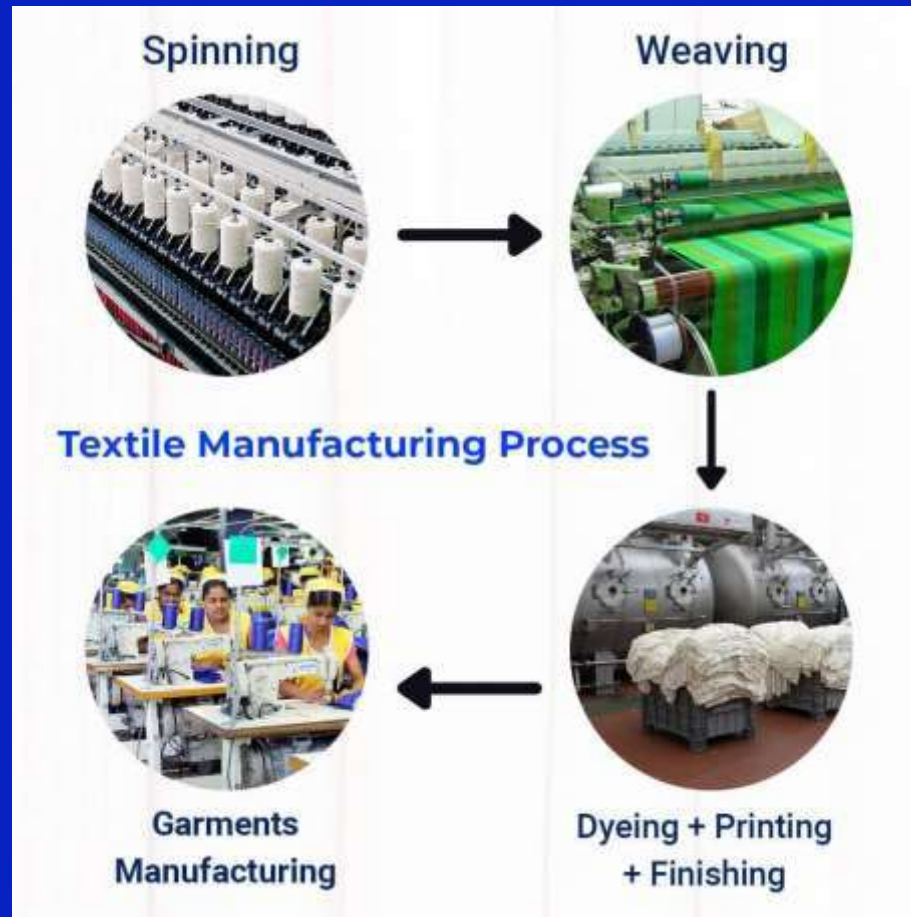
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# FABRIC MANUFACTURING OPERATIONS

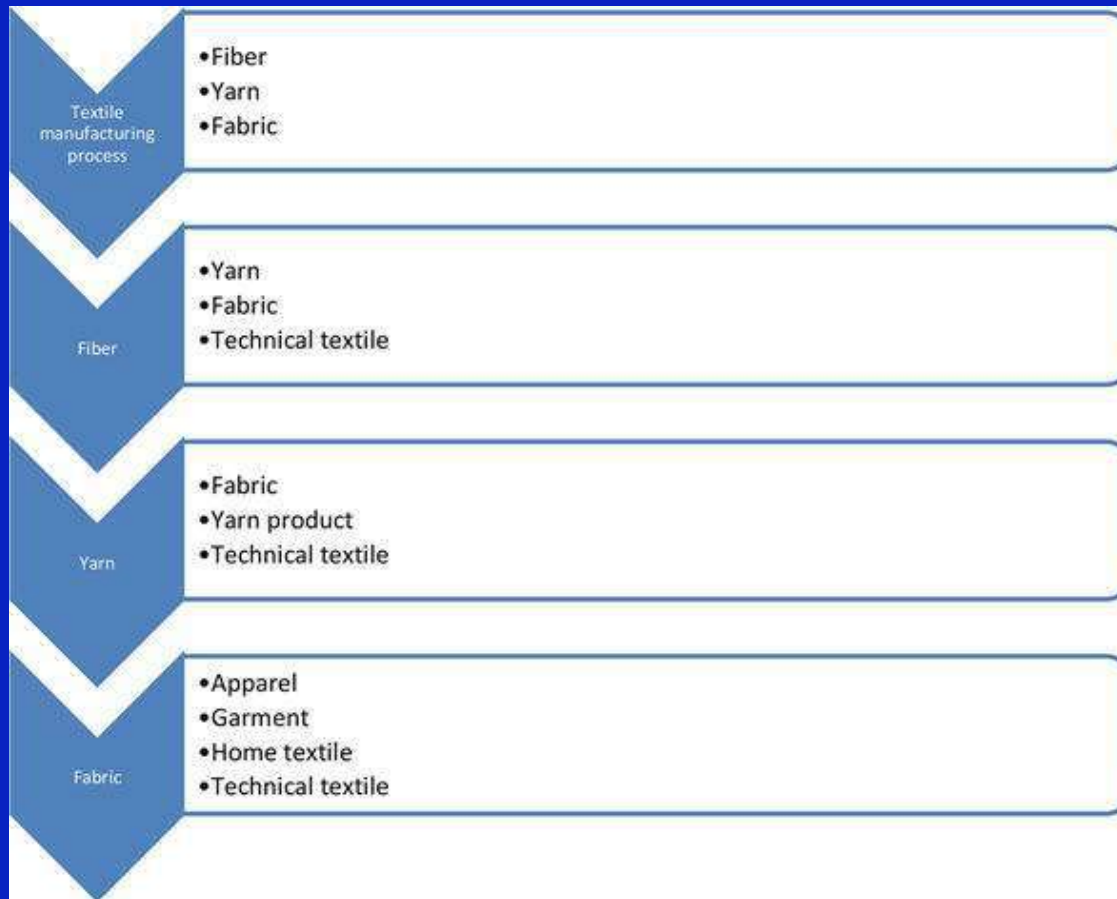


# INTRODUCTION

- The textile manufacturing processes in the global textile industry are producing the textile yarn, fiber, fabric, and finished products including apparels.
- The global textile industry associated with the apparel and non-apparel products is expected to exceed USD 1000 billion in the next couple of years .
- The textile industry market is mainly represented by countries China, the USA, India, and the European Union.
- China is indicated as the country with leading textile manufacturing facility representing around one-fourth of the global textile industry.



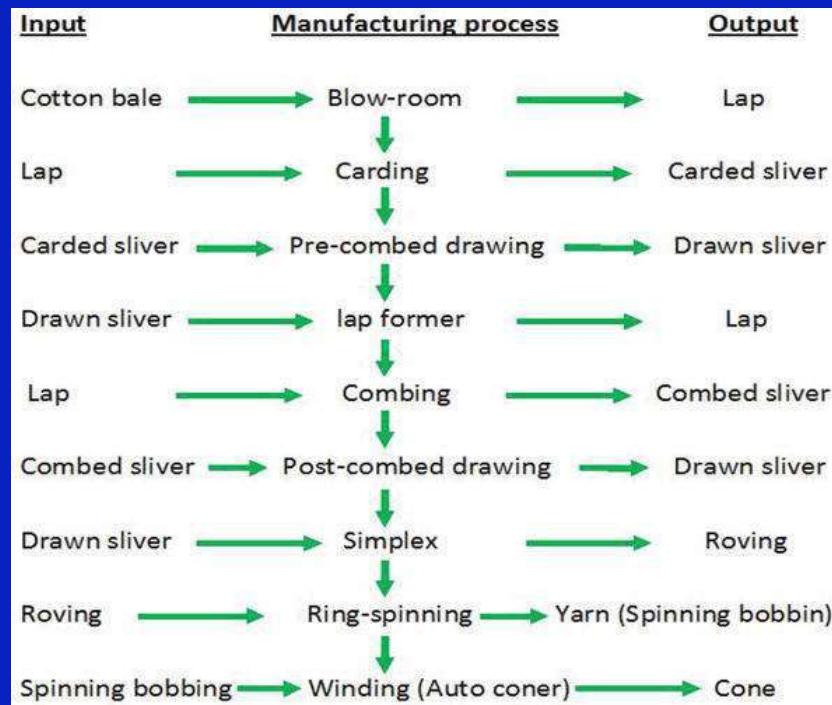
# TEXTILE MANUFACTURING PROCESS



TEXTILE MANUFACTURING PROCESS FROM FIBER TO FABRIC

# YARN MANUFACTURING:

Traditionally, yarn manufacturing comprises a series of processes involved in converting the fiber into yarn. It was rooted in natural fibers obtained from natural plant or animal sources. Natural fibers are produced with natural impurities that were removed from the yarn in subsequent pretreatment processes.

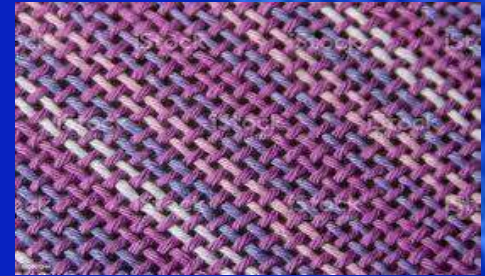


# FABRIC MANUFACTURING

- Textile fabric is at least a two-dimensional structure produced by fiber/yarn interlacing.
- The interlaced fibrous structure mainly used is woven, nonwoven, and knitted. Traditionally, the weaving technology was the principal source for fabric production.



- The important types of woven fabric produced are the basic weaves, such as plain or tabby, twill, and satin, and the fancy weaves, including pile, jacquard, dobby, and gauze.



- Knitted fabric is the second major type of fabric used following the woven. It is particularly a comfortable form of fabric structure for sports, casual wear, and undergarment. Knitted fabrics include weft types and the warp types, Raschel, and tricot.



- Nonwoven fabrics are rapidly increasing in market consumption. These fabrics are finding interesting uses in industrial and home applications. Nonwoven fabrics include materials produced by felting and bonding.



# GARMENT MANUFACTURING

- Garment is known as a piece of clothing. Garment design and manufacturing is the combination of art and technology.















- Garment manufacturing has seen several advancements in design development, computer-aided manufacturing (CAD), and automation. However, the older version of garment manufacturing process is still the main theme today—that is, the cutting and joining of at least two pieces of fabric. The sewing machine has the function of joining woven or cut-knitted fabrics. Garments are mostly produced by sewing the pieces of fabric using a sewing machine. These machines are still based on the primary format used.



# TECHNICAL TEXTILES

Technical textile is an established domain of interdisciplinary application of textile products. Most of the major industrial sectors are benefiting the function of fiber material

- Meditech
- AgroTech
- BuildTech
- MobileTech
- ProTech
- InduTech
- HomeTech
- ClothTech
- SportTech
- PackTech
- OekoTech or EcoTech
- Geotech

	<b>Agrotech</b> Horticulture + landscape gardening, agriculture + forestry, animal keeping		<b>Meditech</b> Hygiene, medicine
	<b>Buildtech</b> Membrane, lightweight + massive construction, engineering + industrial building.		<b>Mobiltech</b> Cars, ships, aircraft, trains, space travel
	<b>Clothtech</b> Garments, shoes		<b>Oekotech</b> Environmental protection, recycling, waste disposal
	<b>Geotech</b> Road infrastructure, Railways, Irrigation and Hydraulic structures, Waste Landfills, Dams etc.		<b>Packtech</b> Packaging, protective-cover systems, sacks, big bags, container systems
	<b>Homotech</b> Furniture, upholstery + interior furnishing, rugs, floor coverings		<b>Protech</b> Person and property protection
	<b>Indutech</b> Filtration, cleaning, mechanical engineering, chemical industry		<b>Sporttech</b> Sport and leisure, active wear, outdoor, sport articles.

# VALUE ADDITION PROCESSES

- Pre treatment processes
  - Desizing
  - Scouring
  - Bleaching
  - Degumming
- Coloration processes
  - Dyeing
  - Printing
- Special finishing processes
  - Anti microbial
  - Repellent
  - Retardant



**THANK YOU**

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