

(Textile Engineering Department)

Undergraduate

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Course Title: **Knitting Processes**

Prerequisite: Spinning Process

Number of Credits: 2

Lecturer: Dr. Azita Asayesh

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**Course Topics:**

- History of knitting- types of knitting- comparison of wet and warp knitting- applications of weft and warp knitted fabrics- General terms in weft knitting
  - Types of weft knitting machine- knitting elements in weft knitting machine- types of needles and their application- different parts of each needle -loop structure- types of stitches (knit, tuck and miss) and their formation principles- knitting notation
  - The knitting action of the V-bed flat knitting machine - the knitting action of the bearded, latch and compound needle- basic weft knitted structures
  - The knitting action of the single jersey circular knitting machine- basic single jersey weft knitted structures and their analysis
  - The knitting action of the double jersey circular knitting machine- basic double jersey weft knitted structures and their analysis
  - Definition of timing and its application- Definition of gating and its application- loop length control- yarn feeding systems
  - Jacquard mechanism -different types of weft Jacquard knitted fabrics-Weft knitting production calculations
  - General terms in warp knitting, types of warp knitting machinery, knitting elements in warp knitting machine.
  - The knitting action of the tricot and raschel knitting machines, Standard lapping movements
  - Single guide bar fabrics, the mechanisms of lateral movement of guide bar (pattern disk – pattern drum).
  - Double guide bar fabrics (full and half threaded of guide bars)
  - Let off yarn and fabric take up mechanisms.
  - Raschel lace machine, laid-in fabrics.
  - An introduction to two needle bar raschel machines and their knitting action
  - Warp knitting production calculations.
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**Reading Resources:**

- Knitting Technology
- Circular knitting : technology, process, structures, yarns, quality