

(Textile Engineering Department)

Graduate

Course Title: **Special Subject in Text. Technology (I)**

Lecturer: **Dr. Azita Asayesh**

Course Topics:

- Introduction to the production of industrial fabrics, their characteristics and applications-Three dimensional fabrics- Spacer fabrics- Multiaxial knitted fabrics
- Geometrical model of three dimensional orthogonal woven fabric- Effect of fabrics structural parameters on the characteristics of three dimensional orthogonal woven fabric
- Geometrical model of three dimensional angle interlock woven fabric- Effect of fabrics structural parameters on the characteristics of three dimensional angle interlock woven fabric
- Effect of fabrics structural parameters on the mechanical properties of three dimensional woven fabrics
- Effect of fabrics structural parameters on the mechanical properties of three dimensional woven fabrics
- Modelling the compressional behavior of spacer fabrics
- Modelling the compressional behavior of spacer fabrics
- Effect of fabrics structural parameters on the compressional properties of spacer fabrics
- Effect of fabrics structural parameters on the compressional properties of spacer fabrics
- Effect of fabrics structural parameters on the tensile properties of spacer fabrics
- Effect of fabrics structural parameters on the tensile properties of spacer fabrics
- Geometrical model of multiaxial warp knitted fabrics
- Effect of fabrics structural parameters on the mechanical properties of multiaxial knitted fabrics.
- Effect of fabrics structural parameters on the mechanical properties of multiaxial knitted fabrics.
- Seminar presentation

Reading Resources:

- 3D fibrous assemblies: Properties, applications and modelling of three-dimensional textile structures
 - Advances in 3D Textiles
 - Handbook of technical textiles, Volume 1: Technical Textile Processes
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