

(Textile Engineering Department)

Undergraduate

Course Title: Floor Covering Technology

Prerequisite: Weaving Process

Number of Credits: 2

Lecturer: Dr. Seyed Mohammad Hoseini Varkiani

Course Topics:

- Introduction to the course references, history of floorcovering industry, used materials and process of carpet production
 - Machine carpet features and explanation of the physical and chemical properties of the various raw materials pile of carpet weaving machine
 - The requirements for the yarn used to produce the carpet (in terms of strength, elongation and etc.) and the description of the yarn heat set
 - Explanation of the different parts of a carpet weaving machine
 - Explanation of the single rapier and double rapier weaving technique
 - Explanation of the triple rapier and UCL weaving technique
 - Description of single shot, two shot and three shot weave
 - Explaining the outstanding weave and the production of carpet weaving machines and related calculations
 - Carpet design
 - Principals of the production of needle felts- Properties of the fibers used in needle felts- Web forming procedures
 - Characteristics of web- Web bonding procedures- Principals of needling- Needling machines
 - Properties of needles- Web bonding, structuring and patterning with needles- Various needled products- Finishing of needle felts
 - Principals of tufting- Tufting elements and tufted carpet machines- Loop pile and cut pile tufted carpet
 - Patterning systems for tufted carpets
 - Finishing of tufted carpets
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Reading Resources:

- Carpet Manufacture