

Study Programme: Clothing engineering		
Course Unit Title: Mechanical textile technology		
Course Unit Code: OAS071		
Name of Lecturer(s): Assistant professor Nadiia Bukhona, PhD		
Type and Level of Studies: Theoretical and methodological		
Course Status (compulsory/elective): Compulsory		
Semester (winter/summer): Summer		
Language of instruction: English		
Mode of course unit delivery (face-to-face/distance learning): Face-to-face		
Number of ECTS Allocated: 5		
Prerequisites: Doesn't have		
Course Aims: Acquiring knowledge about the basic techniques of making yarns, fabrics, knitwear and non-conventional textile materials. Getting to know the mechanisms for management and regulation in the production of the mentioned products.		
Learning Outcomes: Students are able to independently apply the basic techniques of making yarns, fabrics, knitwear and non-conventional textile materials according to production requirements. Students are trained to manage and rationalize production processes based on the acquired knowledge in this area.		
Syllabus: <i>Theory:</i> Basic processes of yarn production from natural and chemical fibers. Ring, rotor and aerodynamic spinning. Yarn winding and netting. Dreaming and starching. Basic fabric manufacturing processes. Division and basic characteristics of weaving looms according to the method of forming the yaw and weaving bodies. Structures and properties of fabrics according to purpose. Development and specifics of machines in the fabric making process. Basic processes of knitting. The laws of knitting. Flat and circular machines. Basic interlacing machines. Computerization of knitting. Manufacturing processes of non-convection textiles. Basic production lines. Quality parameters of yarns, fabrics, knitwear and non-conventional textiles. <i>Practice:</i> Through exercises, students work on the basic elements of production processes of making yarn, fabrics, knitwear and unconventional textiles.		
Required Reading: <ol style="list-style-type: none"> 1. S. Šunjka; Spinning Technology; "M. Pupin" Technical Faculty, Zrenjanin; 1999. 2. M. Petrović; Knitting Technology; "M. Pupin" Technical Faculty; 2000. 3. B. Antić, J. Stepanović; Weaving Technology; Faculty of Technology, Leskovac; 2001. 4. S. Šunjka, V. M. Petrović; Nonwoven Textile Technology; "M. Pupin" Technical Faculty, Zrenjanin; 1996. 5. S. Milosavljević; Spinning; Faculty of Technology and Metallurgy, Belgrade; 1990. 6. B. Antić, J. Stepanović; Weaving Technology; Faculty of Technology, Leskovac; 2001. 7. J. Stepanović, S. Janjić; Mechanical Textile Technology; University of Banja Luka, Faculty of Technology, Banja Luka; 2015. 		
Weekly Contact Hours: 6	Lectures: 2	Practical work: 4

Teaching Methods:

Verbal teaching methods. Illustrative teaching methods. Demonstration teaching methods.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class participation	20	written exam	15
Practical work		oral exam	35
Preliminary exam(s)	30		
Seminar(s)			

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.