

Name of subject: Machines of industrial technologies I. (blended)	NEPTUN-code: RTXIT1EBNE	Number of hours: <i>lec+gs+lab</i> 1+0+1	Credit: 3 Requirements: practice mark
Course coordinator: Gabriella Oroszlány PhD	Title: assistant lecturer	Prerequisite: -	
Subject content:			
<p>Machinery fundamentals, basic concepts, principles and operational requirements are closely related to the product design expertise area. Operation, development and relations of structural units and building elements of ubiquitous machines of industrial technologies and simple technical systems. Kinematic basic concepts and fundamental mechanisms. Mechanisms of degrees of freedom (DOF calculations), structural - kinematic analysis. The material processing and manufacturing process technology associated with each step of the special equipment, their structure, operating principles and basic concepts. Textile machinery, non-woven fabrics production of machines, production machines of knitted products. Finishing machines, equipments used for painting and pattern-making. Types and operating principles of equipments for carrying out the key packaging products and packaging operations. The latest development trends, solutions and innovations.</p>			
Competences to be mastered:			
<p>a) knowledge</p> <ul style="list-style-type: none"> - Knowledge of basic design principles and methods, as well as major production technology procedures and operating processes. - Knowledge of the most important basic materials applied in the special area of product design, their production and their application criteria. <p>b) capabilities</p> <ul style="list-style-type: none"> - Able to interpret and characterize the structure and operation of the structural units and components of relatively simple technical systems, as well as the design and connection of the system components applied. - Able to explore the causes of failures and to select elimination operations. 			
Bibliography:			
1. Dr. Bódi B.: Ipari technológiák gépei I. (ruhaipar) elektronikus jegyzet, Óbudai Egyetem RKK Budapest, 2011			
2. Dr. Szücs I.: Ipari technológiák gépei II. (textilipar) elektronikus jegyzet, Óbudai Egyetem RKK Budapest, 2011			
3. Kerekes Titusz: Bevezetés a csomagolás technikába I.-II., Papír Press kiadó 2001			
4. Medveczkiné P.B. – Dr. Szücs I. – Szabó R. – Pataki M. – Dr. Kokasné P.L. – Sinkáné Dr. K. A.: Könnyűipari enciklopédia I/3. Textilipari technológiák, BMF. RKK. Jegyzet, 2002.			
5. Dr. Bódi B.: Ruhaipari gépek üzemtana I.-II.-III. BMF. RKK Jegyzet, 2004.2005.			
6. https://elearning.uni-obuda.hu/ electronic notes and aids prepared by the instructor			