

<b>Study Programme:</b> Garment engineering			
<b>Course Unit Title:</b> Technology of textile cutting			
<b>Course Unit Code:</b> DAS002			
<b>Name of Lecturer(s):</b> Assistant Professor Ineta Nemeša			
<b>Type and Level of Studies:</b> Bachelor Academic Degree			
<b>Course Status (compulsory/elective):</b> Compulsory			
<b>Semester (winter/summer):</b> Winter			
<b>Language of instruction:</b> English			
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face			
<b>Number of ECTS Allocated:</b> 6			
<b>Prerequisites:</b> None			
<b>Course Aims:</b> To know principles and methods of lay planning and work process planning in a cutting room. To acquire principles and methods of textile material spreading, manual textile cutting methods, automated textile cutting methods.			
<b>Learning Outcomes:</b> Students are trained to understand theoretical and practical basis of industrial textile material cutting processes from the initial operations which prepare textile materials and work process in a cutting room till final operations to ensure qualitative cut components to further sewing process. Students are introduced with tradition manual textile material spreading and cutting methods and equipment which are still widely used in garment manufacturing. The main accent of the study course is put to the acquirement of advanced automated work methods - automated textile spreading equipment and automated textile cutting systems, as well as, to the comparison of the manual and automated work methods and advantages of automated work process.			
<b>Syllabus:</b> <i>Theory</i> Initial operations and quality control of textile materials. Lay planning an marker making in textile cutting operations. Automated management systems. Principles and methods of textile spreading. Manual spreading of textile materials. Equipment for manual spreading. Automated spreading of textile materials. Different kind of automated spreading machines. Manual cutting of textile materials. Manual cutting equipment. Automated cutting of textile materials. Automated knife cutting systems and their main parts. Single ply and multi-ply automated cutting systems. Automated laser cutting of textile materials. Placement of equipment in the cutting room. Final operations of the cutting process for textiles. <i>Practice</i> Manual and automated lay planning process. Fabric spreading mods and their application. Spreading of textiles with intricate patterns. The main characteristics of manual cutting machines: a straight knife machine, a round knife machine, a band knife machine. Research and comparison of automated cutting systems developed by different companies.			
<b>Required Reading:</b> 1. I. Vilumsone-Nemeš. Industrial cutting of textile materials, 1st edition, Elsevier 2012. 2. I. Vilumsone-Nemeš. Industrial cutting of textile materials, 2nd edition, Elsevier 2018. 3. R. Nayak., R. Padhye. Automation in garment manufacturing. Elsevier 2017. 4. R. Nayak., R. Padhye. Garment manufacturing technology. Elsevier ,2015.			
<b>Weekly Contact Hours:</b> 4		<b>Lectures:</b> 2	
		<b>Practical work:</b> 2	
<b>Teaching Methods:</b> Lectures and students group work			
<b>Knowledge Assessment (maximum of 100 points): 100</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation	10	written exam	20
Test I and Test II	40	oral exam	30
Preliminary exam(s)			
Seminar(s)			