

<b>Study Programme: Engineering Management</b>			
<b>Course Unit Title: Work Study and Ergonomics</b>			
<b>Course Unit Code: IM1116</b>			
<b>Name of Lecturer(s): Nenad Simeunović</b>			
<b>Type and Level of Studies: bachelor</b>			
<b>Course Status (compulsory/elective): elective</b>			
<b>Semester (winter/ summer): summer</b>			
<b>Language of instruction: english</b>			
<b>Mode of course unit delivery (face-to-face/distance learning): face-to-face</b>			
<b>Number of ECTS Allocated: 4</b>			
<b>Prerequisites: none</b>			
<b>Course Aims:</b> The aim of the course is to introduce students into modern methods of measurement and study of work, which are used in the work process improvement.			
<b>Learning Outcomes:</b> Students acquire the ability and skills to become competent in researching the importance of area and application of methods and techniques for improvement of product/service and processes of their implementation in the company through enhancing system flexibility.			
<b>Syllabus.</b> Introduction to the work study, basic concepts definition: the process of work, case work, working system, work process participants. Work process structure, the division of labor. Work time structure. Determining the time by recording, instantaneous method of recording, feedback method of recording. Standard time predefined systems, MTM (Methods Time Measurement) system. Working process improvement, Kaizen approach. Methods for extracting and displaying information about the processes and operations. Methods for the work processes analysis, flow process diagram, Ishikawa diagram, ABC chart. Methods for the analysis of time efficiency in the workplace, current methods of observation. Ergonomic design for work. Physiological work conditions. Psycho-sociological conditions at work. Working environments conditions, lighting, noise, micro-climate, color. Anthropometric conditions at work. 5S steps for decorating workplace by Kaizen. Rational principles of operation.			
<b>Required Reading:</b> Relevant literature in English, tbd			
<b>Weekly Contact Hours:2</b>	<b>Lectures: 2</b>	<b>Practical work: 2</b>	
<b>Teaching Methods:</b> Lectures will be organized by thematic units from the theoretical basis with the presentation of examples. Specific tasks and examples of subject areas will be processed on the exercises, certain methods of work process improvement will be treated in detail, with the involvement of students in independent tasks and thereby the emphasis will be on teamwork.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Attendance			
Computer exercises			
Tests (4x)			

