

Study Programme: Engineering Management			
Course Unit Title: Flexible production and service systems			
Course Unit Code: IM1113			
Name of Lecturer(s): Milovan Lazarević, Nemanja Tasić, Nenad Medić			
Type and Level of Studies: bachelor			
Course Status (compulsory/elective): elective			
Semester (winter/ summer): winter			
Language of instruction: english			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 5			
Prerequisites: none			
Course Aims: Students will acquire the necessary knowledge and skills for research oriented application of methods and techniques to improve the product / service and process of their implementation in the company. Creating a knowledge base needed to integrate production and service systems and all of its components (people, machines, flows of material , energy and information) to make systems flexible in responding to customer demands.			
Learning Outcomes: 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.			
Syllabus. The importance of continuous improvement of products / services and work processes in the company. Methods and techniques of problem analysis and selection of priority areas for improvement. Introduction to flexible technology systems. Flexible Automated Technology Systems. The influence of process time and technological characteristics on system flexibility. Organizing the way of improving the products / services and the work process in the company. Methods and techniques for improving products / services and work processes in an enterprise. Modern identification technologies as a means to increase the system's flexibility. Procedures to improve products / services and processes in the company. Assessment of the effects of improvement.			
Required Reading: Relevant literature in English, tbd			
Weekly Contact Hours:2	Lectures: 2	Practical work: 2	
Teaching Methods: Teaching in subject include: Lectures with analysis of practical examples to improve products / services and processes in the enterprise; auditorial exercises on which the examples of improvements are elaborated and students are required to finish seminar work that presents an independent student work - a case study of a particular improvement of the particular product / service or process. Seminar work is done in exercises and extra-curricular time.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Attendance			
Computer exercises			
Tests (4x)			

