

Study Programme: Engineering Management			
Course Unit Title: Basics of industrial engineering			
Course Unit Code: IM1001			
Name of Lecturer(s): Nemanja Tasić			
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: 6			
Prerequisites: none			
Course Aims: The course Fundamentals of industrial engineering is the starting subject in the study, understanding and design of complex systems and processes in the field of industrial engineering and engineering management. The educational goal is to master the basic knowledge of engineering and systems view of the world, with an emphasis on the application of this approach to production and service business systems. The aim of the course is to graduate in Engineering Management acquires competences in order to be able to independently perform engineering analysis of various production and business systems.			
Learning Outcomes: Students who complete the course and pass the exam are able to detect components of business systems, understand the relationships between them, analyze the main functions of the company as a complex dynamic system and detect its policy, plan and program. Graduated engineer of management acquires competence to analyze the different production and business systems.			
Syllabus. Industrial Engineering and Systems Theory. Systems and the characteristics of the system, Basic dimensions and state of the system. System functions and flows in the system. The structure of the system. Environment conditions. Dynamic modeling of production systems. Control of the system. Industrial engineering challenges in the new millennium.			
Required Reading: Relevant literature in English, tbd			
Weekly Contact Hours:2		Lectures: 2	Practical work: 3
Teaching Methods: Teaching includes lectures on the subject with examples of application of system approach to the production and service systems and auditory exercises in which through a case study of different production and service systems in small groups are detailed the specific topics from the lecture.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Attendance			
Computer exercises			
Tests (4x)			

