

Study program: Mechatronics			
Type and level of studies: Undergraduate academic studies			
Course unit: Reengineering of production systems			
Teacher in charge: Srećko Ćurčić			
Language of instruction: English			
ECTS: 6			
Prerequisites: No			
Semester: Summer			
Course unit objective			
The basic objective of this course is for students to gain knowledge of the reengineering of production systems, as well as the knowledge of appropriate processes for various types of reengineering of production systems.			
Learning outcomes of Course unit			
The acquired knowledge enables students to properly analyse the problems of various processes, especially the processes regarding design, production and exploitation. Applying a process approach with defined goals will enable increased productivity and competitiveness in reengineering of production systems and processes.			
Course unit contents			
<i>Theoretical teaching:</i> Production systems, reengineering. Changes as a necessity for survival. Process oriented organization. Process management. Process improvement. Business management and reengineering steps. Reengineering of production systems in the function of process automation. Reengineering of production business systems in the function of quality. Reengineering of production systems in productivity. Reengineering of production systems as a function of flexibility. Reengineering of production lines. Reengineering project realization.			
<i>Practical teaching:</i> Students will perform the exercises by solving practical problems for: process redefinition according to specific requirements. Students are required to do three independent assignments to redefine production conditions.			
Literature			
1. Lev Stont: Reengineering a production process and materials management, 2017.			
2. Robert E. Stein: Re-Engineering the Manufacturing System: Applying the Theory of Constraints, Second Edition (Manufacturing Engineering & Materials Processing) 2nd Edition.			
Number of active teaching hours			Other classes
Lectures:2	Practice:2	Other forms of classes:	
Teaching methods:			
- Lectures			
- Calculation exercises			
- Practical exercises			
Examination methods (maximum 100 points)			
Exam prerequisites	No. of points:	Final exam	No. of points:
Student's activity during lectures	10	oral examination	20
Practical classes	30	written examination	10
Tests	10	Project	20
Project			
Other			
Grade	No. of points	Description	
10	91-100	Excellent (A)	
9	81-90	Exceptionally good (B)	
8	71-80	Very good (C)	
7	61-70	Good (D)	
6	51-60	Passing (E)	
5	0-50	Failing (F)	