

Specification for the book of courses

Study program		Control Systems		
Module		Automatic Control		
Type and level of studies		Master studies		
The name of the course		Flexible Production Systems		
Lecturer (for lectures)		Jovanović D. Zoran, Nikolić S. Saša		
Lecturer/associate (for exercises)		Todorović Z. Darko		
Lecturer/associate (for OFE)				
Number of ECTS	5	Course status (obligatory/elective)	Elective	
Prerequisites				
Course objectives				
Introduction to the production systems and their comparison. Cellular manufacturing systems and their applications. The application of Computer Integrated Manufacturing - CIM, advantages and disadvantages.				
Course outcomes				
Understanding of manufacturing technologies, their advantages and disadvantages. Ability to track trends in modern production systems. Development of own production techniques and quality control in flexible manufacturing systems.				
Course outline				
Theoretical teaching				
Introduction to industrial production. What are production lines, methods of production, continuous production, flexible manufacturing systems. Types of flexibility and flexible manufacturing systems. Management of flexible manufacturing systems. Detailed example of a flexible manufacturing system. Production process and reduction of waste. Review on the quality system. Quality assurance and control, tolerance. Standard components, what are they and why use them in the development and manufacture. Complexes of standard components. Development of existing products. Packing, function of packing, packaging materials.				
Practical teaching (exercises, OFE, study and research)				
Textbooks/references				
1	Lecture notes and slides (to be posted on the web page of the Faculty)			
2	Scientific and technical papers in accordance with student's needs.			
3				
4				
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	2	0		
Teaching methods				
Lectures, board exercises, individual student homework and project, student final papers presentation and discussion.				
Grade (maximum number of points 100)				
Pre-exam duties		Points	Final exam	Points
Activity during lectures		10	Written exam	
Exercises			Oral exam	40
Colloquia				
Projects		50		