

Study program: Mechatronics				
Type and level of studies: Master studies (second level of studies)				
<b>Course unit: New manufacturing technologies</b>				
<b>Teacher in charge: Jelena Baralić, Nedeljko Dučić</b>				
Language of instruction: English				
ECTS: 6				
Prerequisites: -				
Semester: Winter				
<b>Course unit objective</b>				
The main objective of this course is to introduce students to fundamentals of Rapid Prototyping technologies (RP), Computer Numerical Control (CNC), Distributive Numerical Control (DNC), Flexible manufacturing system (FMS), and Intelligent Manufacturing Systems (IMS).				
<b>Learning outcomes of Course unit</b>				
Students gain theoretical and practical knowledge of the investigated technologies and techniques. Students are able to participate in the production processes and improve them.				
<b>Course unit contents</b>				
<i>Theoretical classes</i>				
Rapid Prototyping technologies (RP), Computer Numerical Control (CNC), Distributive Numerical Control (DNC), Flexible manufacturing system (FMS), Intelligent Manufacturing Systems (IMS).				
<i>Practical classes</i>				
Laboratory and computer sessions, case study				
<b>Literature</b>				
1. RAPID PROTOTYPING: PRINCIPLES AND APPLICATIONS, World Scientific Publishing, 2010. 2. CNC Handbook: McGraw-Hill Education, 2012.				
<b>Number of active teaching hours</b>				<b>Other classes</b>
Lectures: 2	Practice: 2	Other forms of classes: Mentoring system	Independent work: Case study	
<b>Teaching methods:</b> consultations, independent work				
<b>Examination methods ( maximum 100 points)</b>				
<b>Exam prerequisites</b>	<b>No. of points:</b>	<b>Final exam</b>	<b>No. of points:</b>	
Student's activity during lectures	10	oral examination	50	
Practical classes		written examination	0	
Seminars/homework	40	.....		
Project				
<b>Grading system</b>				
<b>Grade</b>	<b>No. of points</b>	<b>Description</b>		
10	91-100	Excellent		
9	81-90	Exceptionally good		
8	71-80	Very good		
7	61-70	Good		
6	51-60	Passing		
5	less than 50	Failing		