

<b>Study program : Mechanical Engineering, Module Industrial Engineering</b>			
Type and level of studies: BSC			
<b>Course unit: Production systems</b>			
<b>Teacher in charge : Miladin Stefanovic</b>			
Language of instruction: English			
ECTS: 6			
Prerequisites: no			
Semester: <i>Summer semester</i>			
<b>Course unit objective:</b> Presentation of concept and detail of production systems, identification and management of production processes using general concepts of management of technologies and production, supply management, CAPP, costs management, just-in-time, TQM and CIM concept.			
<b>Learning outcomes of Course unit</b>			
Understanding and knowledge of general skills, knowledge and competences connected to structures, management and directions of development of production and other parts of production system.			
<b>Course unit contents</b>			
<i>Theoretical classes</i>			
In the theoretical part of the course following fields will be covered: introduction to theory of the systems and management of the systems, information systems, basis of production systems, management of technologies and products, CAPP systems, supply management, planning and production control, quality management, tolls management, maintenance management, cost management, directions of development of production systems and flexible automatizaion.			
<i>Practical classes</i>			
Analysis of production system. Application of theoretical knowledge on real life problems.			
<b>Literature</b>			
[1] K. Asai, (Editor), et al Edition "Manufacturing, Automation Systems and CIM Factories," Springer, ISBN: 0412482304			
[2] James A. Rehg "Introduction to Robotics in CIM Systems" (5th Edition) ", Prentice Hall, 5 edition (March 8, 2002), ISBN 0130602434			
[3] Groover, M. P. (2007). Automation, production systems, and computer-integrated manufacturing. Prentice Hall Press.			
<b>Number of active teaching hours</b>			<b>Other classes 1</b>
Lectures: 3	Practice: 1,6	Other forms of classes:0,4 Independent work:0	
<b>Teaching methods</b>			
Classical, frontal lecturing, combined with individual and group approach using modern education equipment. Evaluation of knowledge: tests and seminars.			
<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	<b>10</b>	oral examination	<b>30</b>
practical classes/tests	<b>40</b>	written examination	
Seminars/homework	<b>20</b>	.....	
Project			
Other			
<b>Grading system</b>			
<b>Grade</b>	<b>No. of points</b>	<b>Description</b>	
<b>10</b>	<b>91-100</b>	Excellent	
<b>9</b>	<b>81-90</b>	Exceptionally good	
<b>8</b>	<b>71-80</b>	Very good	
<b>7</b>	<b>61-70</b>	Good	
<b>6</b>	<b>51-60</b>	Passing	
<b>5</b>	<b>≤50</b>	Failing	