

<b>Study program:</b> Industrial engineering – Mechanical engineering			
<b>Course title:</b> Hydraulics and Pneumatics			
<b>Professor/assistant:</b> Šarenac Milovan			
<b>Type of course:</b> Compulsory			
<b>ECTS credits:</b> 6			
<b>Prerequisites:</b> none			
<b>Aims of the course:</b> Students gain knowledge in the area of hydrostatic systems used for power transmission. Students become familiar with managing, regulating, measuring and other knowledge and its application regarding servo-hydraulics.			
<b>Learning outcomes:</b> The student gains knowledge about hydraulics and pneumatics, and is taught to perform tasks regarding managing, regulating, measuring, and defining.			
<b>Syllabus:</b> <i>Theoretical part:</i> Hydraulic systems. Hydrostatics and hydrodynamics. Hydrocylinders. Distributors. Valves. Hydrostatic power transmitters. Hydraulic circuits. Servo-hydraulics. Thermodynamic processes. Pneumatic components. Pneumatic steering systems. <i>Practical part:</i> Auditory exercises, solving practical task, term papers			
<b>Literature:</b> 1. Zarić, S., Priručnik iz industrijske hidraulike, SMEITS, Beograd, 2004. 2. Zarić, S., Priručnik iz industrijske hidraulike, SMEITS, Beograd, 1995 3. Obrović, B., Savić, S. Hidraulika (osnovi), MF, Kragujevac, 2005.			
<b>Total number of active classes:</b> 60		<b>Lectures:</b> 30	<b>Practical classes:</b> 30
<b>Teaching methods:</b> Lectures, auditory exercises, practical work, term paper			
<b>Grading system</b> (maximum 100 points) grading scale from 5 to 10: below 51 points – student fails the exam, grade 6 from 51- 60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91- 100 points.			
<b>Pre-exam obligations:</b>	<b>Points:</b>	<b>Final exam:</b>	<b>Points:</b>
Activity during lectures	max 5	Oral exam	50
Practical training	max 5		
Written test(s)	max 20		
Term papers	max 20		
Minimum requirement for the final exam	30		