



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Traffic engineering, transport and logistics		
Study Module (if applicable)	-		
Course Title	Hydraulic and pneumatic systems of vehicles		
Level of Study	<input type="checkbox"/> Bachelor	<input checked="" type="checkbox"/> Master's	<input type="checkbox"/> Doctoral
Type of Course	<input type="checkbox"/> Obligatory	<input checked="" type="checkbox"/> Elective	
Semester	<input type="checkbox"/> Autumn	<input checked="" type="checkbox"/> Spring	
Year of Study	I		
Number of ECTS Allocated	6		
Name of Lecturer/Lecturers	Dragoslav B. Janošević		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input type="checkbox"/> Individual tutorials
	<input checked="" type="checkbox"/> Laboratory work	<input checked="" type="checkbox"/> Project work	<input checked="" type="checkbox"/> Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> Other

Purpose and Overview (max. 5 sentences)

Analysis of the concepts and parameters of hydraulic and pneumatic systems of the vehicles. Hydrodynamic and hydrostatic transmission of vehicles. Hydraulic and pneumatic brake and steering systems of vehicles. The design of a hydraulic and pneumatic systems of vehicles.

Syllabus (brief outline and summary of topics, max. 10 sentences)

1) Functions of the hydraulic and pneumatic systems of the vehicles, 2) Hydrodynamic transmissions of vehicles, 3) Hydrodynamic torque converters and gearboxes, 4) Hydrostatic transmissions of vehicles, 5) Control of hydrostatic transmission of vehicles, 6) Hydrodynamic and hydrostatic braking systems of vehicles 7) Hydrostatic drive mechanisms of vehiclesmanipulator, 7) Hydrostatic steering systems of vehicles, 9)Power steering, 10) Pneumatic vehicle systems, 11) Characteristics of pneumatic brake systems 12) Pneumatic drive and steering systems of additional equipment of the vehicle.

Language of Instruction

- Serbian (complete course) English (complete course) Other _____ (complete course)
- Serbian with English mentoring Serbian with other mentoring _____

Assessment Methods and Criteria

Pre exam Duties	Points	Final Exam	Points
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Activity During Lectures	5	Written Examination	50
Practical Teaching	10	Oral Examination	Max. 35 (depending on Teaching Colloquia)
Teaching Colloquia	35	Overall Sum	100
*Final examination mark is formed in accordance with the Institutional documents			