



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	CAD studio of machines and 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)

Engineering design methodology and application of available and development of application software in the process of designing machines and vehicles in the atmosphere of CAD studio. Mathematical models, dynamic simulation and structural analysis of machines and vehicles. criteria and methods of design of machines and vehicles.

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

1) Basics of engineering design, 2) General procedure design of machinery and vehicles, 3) Method QFD (Quality Function Deploymet), 4) Software tools for analysis and design of machines and vehicles, 5) Morphological analysis and selection of machines and drive concepts, 6) Development of mathematical models for dynamic simulation of machines and vehicles, 7) development of application software for energy analysis of machines and vehicles, 9) Synthesis of the drive system, 10) The influential factors shaping machines and vehicles, 11) Criteria dimensioning and reliability of elements of machines and vehicles 12) Structural analysis of the skeletons of machinery and vehicles.

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			