



# UNIVERSITY OF NIŠ

**Course Unit Descriptor**

**Faculty**

Faculty of Mechanical Engineering

## GENERAL INFORMATION

Study Program	<b>Mechanical Engineering</b>		
Study Module (if applicable)	-		
Course Title	Ergonomics and industrial design		
Level of Study	<input checked="" type="checkbox"/> Bachelor	<input 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	IV		
Number of ECTS Allocated	5		
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)

Fundamentals of ergonomics. The elements and forms of industrial and graphic design. The analysis methodology and process of ergonomic design and industrial and graphic design products. Ergonomic design and industrial design of mobile machines and vehicles.

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

1) The definition of ergonomics, 2) Engineering psychology ergonomics, 3) Basis of anthropometry and biomechanics, 4) Ergonomic design principles and limitations of the workplace and space, 5) Zones of comfort and reach of management, 6) Factors of comfort: air conditioning, lighting, noise and vibration, 7) FOPS (Falling Objects Protective Structure) and ROPS (Roll Over Protective Structure) operator cab, 8) Definition of industrial and graphic design, 9) Elements and form design, 10) The process of development of industrial design products, 11) Detailed industrial and graphic design products, 12) Rapid Prototyping and product presentations.

## 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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<b>Activity During Lectures</b>	<b>5</b>	<b>Written Examination</b>	<b>50</b>
<b>Practical Teaching</b>	<b>10</b>	<b>Oral Examination</b>	<b>Max. 35 (depending on Teaching Colloquia)</b>
<b>Teaching Colloquia</b>	<b>35</b>	<b>Overall Sum</b>	<b>100</b>
<b>*Final examination mark is formed in accordance with the Institutional documents</b>			