



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Doctoral Academic Studies		
Study Module (if applicable)	-		
Course Title	Tribology of mechanical systems		
Level of Study	<input type="checkbox"/> Bachelor	<input type="checkbox"/> Master's	<input checked="" 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	10		
Name of Lecturer/Lecturers	Dušan S. Stamenković, Miroslav M Mijajlović		
Teaching Mode	<input type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input checked="" type="checkbox"/> Individual tutorials
	<input checked="" type="checkbox"/> Laboratory work	<input checked="" type="checkbox"/> Project work	<input type="checkbox"/> Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> Other

Purpose and Overview (max. 5 sentences)

Introduces students to tribological processes in mechanical engineering and fundamental friction theories. Students should perform individual scientific analysis of mechanical systems from the tribological aspects.

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

1) General introduction, 2) External and internal friction, 3) Real area of solid contact, 4) Calculation and measurement of contact parameters, 5) Static and dynamic friction, 6) Pre-sliding the importance of static friction, 7) Parameters affecting the friction, 8) Methods for determining friction parameters: numerical and experimental, 9) Wear and wear parameters, 10) Lubrication, 11) Modelling of tribological pairs; Friction simulation, 12) Experimental investigation of tribological parameters

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
Activity During Lectures		Written Examination	

Practical Teaching		Oral Examination	50
Teaching Colloquia	50	Overall Sum	100

***Final examination mark is formed in accordance with the Institutional documents**