



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering		
Study Module (if applicable)	-		
Course Title	Stochastic Processes in 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 checked="" type="checkbox"/> Autumn	<input type="checkbox"/> Spring	
Year of Study	II		
Number of ECTS Allocated	10		
Name of Lecturer/Lecturers	Predrag Kozić,		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input checked="" type="checkbox"/> Individual tutorials
	<input 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)

To introduce students to the basics of the theory of random fluctuations and processes in mechanical systems. The acquisition of knowledge in the theory of random fluctuations. Prepare students for research in their doctoral dissertation.

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

The axioms of probability. Characteristics of a random variable. Examples of distribution functions and probability density. Reliability of mechanical systems exposed to random effects. Common features of two or more random variables. Reliability of mechanical systems exposed to more random variables. Basic theory of random functions. Random fluctuations of discrete mechanical systems. Random fluctuations of continuous mechanical systems.

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	0	Written Examination	80

Practical Teaching	80	Oral Examination	Max. 20
Teaching Colloquia	40	Overall Sum	100

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