



# 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	Vibration and stability of elastic body		
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, Goran Janevski		
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)

Introduce students to the basics of the theory of stability

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

Stability Mathieu-Hill's equations. The stability of linear differential equations with periodic coefficients. Approximate methods. Methods of averaging. Multiple scaling method. Systems with multiple degrees of freedom. Examples.

## 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			