UNIVERSITY OF NIŠ

Course Unit Descriptor	Faculty	Faculty of Mechanical Engineering

GENERAL INFORMATION	
Study Program	Mechanical Engineering
Study Module (if applicable)	-
Course Title	Mechanical Functional Elements
Level of Study	☒Bachelor ☐ Master's ☐ Doctoral
Type of Course	☐ Obligatory ☒ Elective
Semester	☒ Autumn ☐ Spring
Year of Study	IV
Number of ECTS Allocated	6
Name of Lecturer/Lecturers	Tomislav Petrović, Nenad D. Pavlovič, Nenad T. Pavlović
Teaching Mode	☒ Lectures ☐ Group tutorials ☐ Individual tutorials ☒ Laboratory work ☒ Project work ☒ Seminar ☐ Distance learning ☐ Blended learning ☐ Other

Purpose and Overview (max. 5 sentences)

Gaining new knowledge in the field of springs as driving elements.
Introducing to the functional and constructional characteristics of standard mechanical functional elements.
Introducing to the modern constructional design of mechanical functional elements.
The ability to calculate and use the springs as driving elements in mechatronic devices.
The ability to solve technical problems by means of standard mechanical functional elements.

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

Introduction - classification of mechanical functional elements . Springs as driving elements - theoretical basics and dimensioning of cylindrical and torsion helical springs, spiral and leaf springs as driving elements. Springs as mechanical accumulators. Bearings. Guides. Mechanical elements for motion transformation. Couplings. Brakes. On-off mechanical elements and regulation elements. Auxiliary mechanical elements.

Language of Instruction

☒Serbian (complete course) ☐ English (complete course) ☐ Other _____ (complete course)

☒Serbian with English mentoring ☒Serbian with German mentoring

Assessment Methods and Criteria

Pre exam Duties	Points	Final Exam	Points

Activity During Lectures	**5**	**Written Examination**	**50**
Practical Teaching	**5**	**Oral Examination**	**40**
Teaching Colloquia	**0**	**Overall Sum**	**100**
***Final examination mark is formed in accordance with the Institutional documents**			