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| **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** |