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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 | | | | Power Transmissions | | |
| Level of study | | | | ☒Bachelor ☐ Master’s ☐ Doctoral | | |
| Type of course | | | | ☐ Obligatory☒ Elective | | |
| Semester | | | | ☒ Autumn ☐Spring | | |
| Year of study | | | | III | | |
| Number of ECTS allocated | | | | 6 | | |
| Name of lecturer/lecturers | | | | Stefanović-Marinović D. Jelena | | |
| Teaching mode | | | | ☒Lectures ☐Group tutorials ☐ Individual tutorials  ☐Laboratory work ☒ Project work ☐ Seminar  ☐Distance learning ☐ Blended learning ☐ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| Student will be introduced with theoretical basis, calculation, design, functioning and application of power transmission. | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| * Basic terms and definitions. Power sources types. Types, characteristics and application of power transmissions. * Universal geared power transmissions. Types and design of universal geared transmissions. Connections between power transmission and power source. * Planetary gear trains. Basic terms and types of planetary gear trains. Kinematics. Mounting conditions. Loads. Efficiency. Lubrication. * Power transmissions for motor vehicle * Power transmissions for machine tools. * Variable transmissions. Application and types of variable transmissions. Friction elements strength calculation. * Hydro power transmissions. Elements and types of hydrostatic power transmissions and assemblies with reductors. Hydrodynamic couplings. Hydro-mechanical transmissions. | | | | | | |
| **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** | **5** | | **Written examination** | | |  |
| **Practical teaching** |  | | **Oral examination** | | | **45** |
| **Teaching colloquia** | **30+20** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |