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| **UNIVERSITY OF NIŠ** | | | | | | | | |
| **Course Unit Descriptor** | | | **Faculty** | | Faculty of Mechanical Engineering | | | |
| **GENERAL INFORMATION** | | | | | | | | |
| Study Program | Mechanical Constructions, Development and Engineering | | | | | | | |
| Study Module (if applicable) | – | | | | | | | |
| Course Title | Virtual Product Development | | | | | | | |
| Level of Study | ☐Bachelor | | | ☒ Master’s | | | | ☐ Doctoral |
| Type of Course | ☒ Obligatory | | | ☐ Elective | | | | |
| Semester | ☐ Autumn | | | ☒Spring | | | | |
| Year of Study | I | | | | | | | |
| Number of ECTS Allocated | 6 | | | | | | | |
| Name of Lecturer/Lecturers | Banić S. Milan, Mijajlović M. Miroslav | | | | | | | |
| Teaching Mode | ☒ Lectures | | | ☐Group tutorials | | | | ☐ Individual tutorials |
| ☐ Laboratory work | | | ☒Project work | | | | ☐ Seminar |
| ☐ Distance learning | | | ☐ Blended learning | | | | ☐ Other |
| **Purpose and Overview (max. 5 sentences)** | | | | | | | | |
| *To enable the students to independently perform product development by usage of virtual product development methods and tools.* | | | | | | | | |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** | | | | | | | | |
| Industrial Product Development - process and organisation. Virtual Product Development. Management of Product Development. Innovations management.Team Work in Product Development. Characteristics-Properties Modelling / Property-Driven Development (CPM/PDD). Integration of CAx Tools in Product Development Process. Information Sharing in Product Development. Simulation in Product Development. Optimisation in Product Development. Digital mock-up (DMU), Virtual Prototype (VP) and Virtual Validation.Virtual and Augmented Reality. Rapid Prototyping and Rapid Tooling. PDM / PLM - Product Data / Lifecycle Management. Determination of Product Price. | | | | | | | | |
| **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** | | | **20** | | |
| **Practical Teaching** | | **45** | **Oral Examination** | | | **30** | | |
| **Teaching Colloquia** | | **–** | **Overall Sum** | | | **100** | | |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | | | |