|  |
| --- |
| **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** |