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| **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Faculty of Mechanical Engineering |
| **GENERAL INFORMATION** |
| Study Program | **Manufacturing & Information Technologies** |
| Study Module (if applicable) | - |
| Course Title | Integrated Information Systems |
| 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 | Dragan Mišić |
| Teaching Mode | ☒ Lectures | ☐ Group tutorials | ☐ Individual tutorials |
| ☒ Laboratory work | ☒ Project work | ☒ Seminar |
| ☐ Distance learning | ☐ Blended learning | ☐ Other |
| **Purpose and Overview (max. 5 sentences)** |
| *Complete understanding of benefits, approaches, processes, methods and contemporary technologies for integration of information systems and process organization of enterprises. Students are able to develop high-level architecture of an integrated business information system independently and to independently create a process model and simulate it using the tools learned.*  |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** |
| 1) Products and business processes 2) Business process workflows 3) Process management. Process control. Technological support for a process-organized enterprise 4) Business information systems and business operations technologies 5) Technologies and approaches for integration of business information systems: XML language, service-oriented architecture, synchronous and asynchronous interactions, data mapping and data transformations, interoperability, deterministic and indeterminist business logic, transaction compensation, Hub-and-Spoke, Enterprise Service Bus 6) Modern technologies for integration of information systems and future challenges: cloud computing, internet of things 7) Workflow management systems, workflow management systems standards, workflow reference model 8) Software systems for process management, communication between different process management systems.  |
| **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** | **10** | **Written Examination** | **30** |
| **Practical Teaching** | **30** | **Oral Examination** |  |
| **Teaching Colloquia** | **30** | **Overall Sum** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |