



# UNIVERSITY OF NIŠ

**Course Unit Descriptor**

**Faculty**

Faculty of Mechanical Engineering

## GENERAL INFORMATION

Study Program	<b>Manufacturing &amp; Information Technologies</b>		
Study Module (if applicable)	-		
Course Title	Integrated Information Systems		
Level of Study	<input type="checkbox"/> Bachelor	<input checked="" type="checkbox"/> Master's	<input type="checkbox"/> Doctoral
Type of Course	<input type="checkbox"/> Obligatory	<input checked="" type="checkbox"/> Elective	
Semester	<input checked="" type="checkbox"/> Autumn	<input type="checkbox"/> Spring	
Year of Study	I		
Number of ECTS Allocated	6		
Name of Lecturer/Lecturers	Dragan Mišić		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input type="checkbox"/> Individual tutorials
	<input checked="" type="checkbox"/> Laboratory work	<input checked="" type="checkbox"/> Project work	<input checked="" type="checkbox"/> Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> 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

<b>Pre exam Duties</b>	<b>Points</b>	<b>Final Exam</b>	<b>Points</b>
<b>Activity During Lectures</b>	<b>10</b>	<b>Written Examination</b>	<b>30</b>
<b>Practical Teaching</b>	<b>30</b>	<b>Oral Examination</b>	
<b>Teaching Colloquia</b>	<b>30</b>	<b>Overall Sum</b>	<b>100</b>

**\*Final examination mark is formed in accordance with the Institutional documents**