



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering		
Study Module (if applicable)	-		
Course Title	Intelligent Manufacturing Systems		
Level of Study	<input type="checkbox"/> Bachelor	<input type="checkbox"/> Master's	<input checked="" type="checkbox"/> Doctoral
Type of Course	<input type="checkbox"/> Obligatory	<input checked="" type="checkbox"/> Elective	
Semester	<input type="checkbox"/> Autumn	<input checked="" type="checkbox"/> Spring	
Year of Study	I		
Number of ECTS Allocated	10		
Name of Lecturer/Lecturers	Miodrag T. Manić		
Teaching Mode	<input type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input checked="" 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)

Transfer knowledge to students about the principles, concept and structure of intelligent manufacturing systems. Introduction to the components of the IMS, management, and planning procedures of IMS.

Syllabus (brief outline and summary of topics, max. 10 sentences)

1)Basics of flexible manufacturing structure. Technological basis for the design and implementation of intelligent and flexible manufacturing structure , 2)CNC machine tools as components of intelligent manufacturing systems (IMS), 3)Manipulating systems (industrial robots) as a component of IMS, 3)Measuring and control systems in IMS, Systems for monitoring and diagnosis of IMS, 4)Computer Integrated Manufacturing - CIM, 5)Development trends of modern integrated software CAD / CAE / CAM system, 6)Artificial intelligence and expert systems for IMS., 7) Digital and e-manufacturing, 8)Virtual manufacturing 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	5	Written Examination	50

Practical Teaching	10	Oral Examination	Max. 35 (depending on Teaching Colloquia)
Teaching Colloquia	35	Overall Sum	100

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