

Specification for the book of courses

Study program		Computing and Informatics		
Module		Information Systems and Technologies		
Type and level of studies		Master studies		
The name of the course		Application of Multiple Valued Logic in Representation and Processing of		
Lecturer (for lectures)		Radmanović M. Miloš		
Lecturer/associate (for exercises)		Radmanović M. Miloš		
Lecturer/associate (for OFE)				
Number of ECTS		4	Course status (obligatory/elective)	Elective
Prerequisites				
Course objectives		Students will acquire theoretical and practical knowledge in field of multiple-valued logic and its application in digital system design and signal processing.		
Course outcomes		Students will learn fundamentals of multiple-valued logic, related algebraic structures, and multiple-valued functions, their representation and implementation on the different technological platforms. They will learn fundamental methods for calculation of multiple-valued functions for use in digital system design and signal processing.		
Course outline				
Theoretical teaching		Multiple-Valued Logic Functions and Applications. Functional Expressions for Multiple-Valued Functions. Spectral Representations of Multiple-Valued Functions. Decision Diagrams for Multiple-Valued Functions. Fast Calculation Algorithms. Algorithms for Calculations of Multiple-Valued functions Transforms on Graphical Processors.		
Practical teaching (exercises, OFE, study and research)		Work with the specific software and tools for multiple-valued logic. Program implementation of the fundamental algorithms for multiple-valued functions on the graphical processors.		
Textbooks/references				
1	R.S. Stankovic, J.Astola, C. Moraga, Representations of Multiple- Valued Logic Functions , Morgan & Claypool Publishers, 2012.			
2	D. Michael Miller, Mitchell Thornton, Multiple Valued Logic: Concepts and Representations, Morgan & Claypool Publishers, 2008. ISBN 1598291904			
3	Documents on Web site: http://cs.elfak.ni.ac.rs/nastava/			
4				
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	1	0		
Teaching methods		Presentations by use of slides, seminars and projects.		
Grade (maximum number of points 100)				
Pre-exam duties		Points	Final exam	Points
Activity during lectures			Written exam	
Exercises			Oral exam	40
Colloquia				
Projects		60		