

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Common		
Type and level of studies		Doctoral studies		
The name of the course		Modelling and Design of Microwave Devices and Systems		
Lecturer (for lectures)		Dončov S. Nebojša, Marinković D. Zlatica		
Lecturer/associate (for exercises)				
Lecturer/associate (for OFE)				
Number of ECTS	10	Course status (obligatory/elective)	Elective	
Prerequisites				
Course objectives	The acquisition of higher level theoretical and practical knowledge in the field of modeling and design of microwave devices and systems.			
Course outcomes	Ability to independently solve complex problems in the field of modeling and design of microwave devices and systems.			
Course outline				
Theoretical teaching	Field theory. Numerical methods in applied electromagnetics. Guided electromagnetic waves. Application of circuits theory methods in the RF and microwave frequency range. Modeling of electromagnetic fields. Analysis and optimization of microwave circuits. Modeling and design of devices and systems in various areas of telecommunications.			
Practical teaching (exercises, OFE, study and research)				
Textbooks/references				
1	D. Pozar, Microwave Engineering, John Wiley & Sons, Inc., 1997.			
2	W. Egan, Practical RF System Design, John Wiley & Sons, Inc., 2000.			
3	S E. Wolff, R. Kaul, Microwave Engineering and System Applications, John Wiley & Sons, Inc., 1988.			
4	E. Yamashita, Analysis Methods for Electromagnetic Wave Problems, Artech House, 1990.			
5	C. Christodoulou, M. Gergiopoulos, Applications of Neural Networks in Electromagnetics, Artech House , 2001.			
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
3	0	0	0	0
Teaching methods	Lectures, simulations on computer, consultations, seminar paper.			
Grade (maximum number of points 100)				
Pre-exam duties		Points	Final exam	Points
Activity during lectures			Written exam	
Exercises			Oral exam	50
Colloquia				
Projects		50		