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			Digital Signal Processing	
Lecturer (for lectures)			Nikolić V. Saša, Stančić Z. Goran	
Lecturer/associate (for exercises)				
Lecturer/associate (for OFE)				
Number of ECTS	10	**Course status (obligatory/elective)**		Elective
Prerequisites				
Course objectives	Presentation of advanced topics in digital signal processing. Presentation of state of the art algorithms for digital filter design.			
Course outcomes	Modern approaches for design and implementation of digital filters.			
Course outline				
Theoretical teaching	Parametric signal modeling. Spectral estimation. Multirate processing of digital signals. Efficient Fourier transform and convolution algorithms. Two dimensional signal processing. Advanced topics in filter design.			
Practical teaching (exercises, OFE, study and research	Practical implementation of algorithms for digital filter design in one and two dimension.			
Textbooks/references				
1	J. Lim, A. Oppenhaim: Advanced topics in signal processing, Prentice Hall.			
2	Y. Hussain, A. Sadik, P. Oshea: Digital signal processing, Springer 2011.			
3				
4				
5				

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	Presentations, seminars, projects			

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		