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		Technological Processes in Gasses and Vacuum		
Lecturer (for lectures)		Golubović M. Snežana		
Lecturer/associate (for exercises)				
Lecturer/associate (for OFE)				
Number of ECTS	10	**Course status (obligatory/elective)**	Elective	
Prerequisites				
Course objectives	The acquisition of theoretical knowledge about gases and vacuum in order to introduce to certain technological processes (with particular emphasis on technological processes in microelectronics).			
Course outcomes	Acquired knowledge on technological processes that occur in gases and vacuum, especially on the technological processes in the production of microelectronic devices..			
Course outline				
Theoretical teaching	The properties of gases. Molecular phenomena in the gas. Transport processes in gas. The adsorbed gases. Electric currents in gases. Pumping and vacuum pumps. Measuring the low-pressure gas and vapor. Vacuum systems. Vapor deposition. Nitriding. Cleaning surfaces. Plasma metallurgy. Plasma processes in microelectronics..			
Practical teaching (exercises, OFE, study and research	Seminar work.			
Textbooks/references				
1	VLSI Electronics Microstructure Science, edited by Norman G. Einspruch, Academic Press, 1984.			
2				
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	Presentation on a given topic.			
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		