

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Electron Devices and Microsystems		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		3D printing Technologies		
Lecturer (for lectures)		Vračar M. Ljubomir		
Lecturer/associate (for exercises)		Vračar M. Ljubomir		
Lecturer/associate (for OFE)		Vračar M. Ljubomir		
Number of ECTS	5	Course status (obligatory/elective)	Elective	
Prerequisites				
Course	Acquiring the knowledge for understanding 3D printing technologies			
Course outcomes	Students obtain the knowledge about 3D printing technologies and digital fabrication			
Course outline				
Theoretical teaching	3D printing technologies and digital fabrication. Type of 3D printers. Types and properties of materials for 3D printing. 3D scanners. New materials for 3D printing. Softwares for designing 3D objects and softwares for 3D printing. Applications of 3D printed objects in microelectronics.			
Practical teaching (exercises, OFE, study and research)	Anatomy of 3D printer. Using softwares for 3D printing. Using 3D scanners. Post processing of 3D printed objects.			
Textbooks/references				
1	L. Jyothish Kumar, Pulak M. Pandey, David Ian Wimpenny, "3D Printing and Additive Manufacturing Technologies", Springer, 2019.			
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
2	1	1	0	0
Teaching methods	Lectures; Computer simulations; Practical laboratory work; Consultation.			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam	Points	
Activity during lectures	10	Written exam		
Exercises	20	Oral exam	50	
Colloquia				
Projects	20			