

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Electronics - Multimedia technologies		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Gaming 2		
Lecturer (for lectures)		Jovanović S. Goran		
Lecturer/associate (for exercises)		Cvetković S. Stevica		
Lecturer/associate (for OFE)		Pavlović D. Vlastimir		
Number of ECTS	5	Course status (obligatory/elective)	Elective	
Prerequisites				
Course objectives	Acquiring knowledge needed to create advanced graphics oriented and multimedia applications. Advanced options are primarily related to code optimization, especially on platforms with limited hardware resources, such as mobile devices or web platforms.			
Course outcomes	Gaining the necessary knowledge to use analytics to identify critical parts of the code and get an optimal version of graphically oriented applications. Development of advanced applications, network-based applications, applications for virtual reality. Using alternative input devices, such as accelerometers, gyros, magnetic sensors. Optimization for Internet and web platform, launching applications from Internet browser.			
Course outline				
Theoretical teaching	Network applications. Virtual reality applications. Working with alternative input-output devices (accelerometers, gyros, magnetic sensors ...). Optimal web applications with 3D graphics in java script. Java libraries and the graphically web development environment. Optimize application code, monitor for memory consumption and processor power.			
Practical teaching (exercises, OFE, study and research)	An example of a network application, an example application with specific input-output devices. Creating graphic web applications by using the java script "game engine". Basics of java script for graphical web applications. Examples of creating graphical applications that work from Internet browsers, even on mobile devices. An example of code optimization using analytics.			
Textbooks/references				
1	Alex Okita, Learning C# Programming with Unity 3D, CRC Press, Taylor & Francis Group, 2015.			
2	Sue Blackman, Beginning 3D Game Development with Unity, Apress, 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
2	1	1	0	0
Teaching methods	Lectures, exercises, consultations.			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam	Points	
Activity during lectures	10	Written exam		
Exercises	10	Oral exam	40	
Colloquia				
Projects	40			