

Specification for the book of courses

Study program	Computing and Informatics			
Module	Software Engineering			
Type and level of studies	Master studies			
The name of the course	Computer Animation			
Lecturer (for lectures)	Rančić D. Dejan, Milosavljević Lj. Aleksandar			
Lecturer/associate (for exercises)	Dimitrijević M. Aleksandar			
Lecturer/associate (for OFE)				
Number of ECTS	4	Course status (obligatory/elective)	Elective	
Prerequisites				
Course	Getting to know basic algorithms and techniques for computer animation.			
Course outcomes	Theoretical and practical knowledge of algorithms and techniques for computer animation. Ability to independently develop graphics applications as well as to use ready-made software for computer animation.			
Course outline				
Theoretical teaching	Algorithms and programming techniques of computer animation. Algorithms and approaches to behavior animation and animation based on object physics. 2D and 3D animation. Sprites. Key Frame Technique. Animation of the face and mimics. Direct and inverse kinematics. Capture the movement. Animation in video games. Animation of the particle system. Clothing animation.			
Practical teaching (exercises, OFE, study and research)	Getting acquainted with software tools for computer animation.			
Textbooks/references				
1	Rick Parent et al., Computer Animation Complete, Morgan Kaufmman Publ., 2009.			
2	Marcia Kuperberg et al., A Guide to Computer Animation for TV, Games, Multimedia and Web, Focal Press, 2002.			
3	The Complete Guide to Blender Graphics, Blender 2.50, John M. Blain, CRC Press, 2012.			
4	Blender 2.5 Character Animation Cookbook, Blender 2.50, Virgilio Vasconcelos, Packt Publishing, 2011.			
5	Introducing Character Animation with Blender 2nd ed, Blender 2.50, Tony Mullen, Sybex, 2011.			
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	1	0		
Teaching methods	Lectures, consultations, independent study research.			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam	Points	
Activity during lectures		Written exam		
Exercises	30	Oral exam	40	
Colloquia				
Projects	30			