

## Specification for the book of courses

<b>Study program</b>		Computing and Informatics		
<b>Module</b>		Software Engineering		
<b>Type and level of studies</b>		Master studies		
<b>The name of the course</b>		Computer Animation		
<b>Lecturer (for lectures)</b>		Rančić D. Dejan, Milosavljević Lj. Aleksandar		
<b>Lecturer/associate (for exercises)</b>		Dimitrijević M. Aleksandar		
<b>Lecturer/associate (for OFE)</b>				
<b>Number of ECTS</b>		4	<b>Course status (obligatory/elective)</b>	Elective
<b>Prerequisites</b>				
<b>Course</b>		Getting to know basic algorithms and techniques for computer animation.		
<b>Course outcomes</b>		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.		
<b>Course outline</b>				
<b>Theoretical teaching</b>		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.		
<b>Practical teaching (exercises, OFE, study and research)</b>		Getting acquainted with software tools for computer animation.		
<b>Textbooks/references</b>				
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.			
<b>Number of classes of active education per week during semester/trimester/year</b>				
<b>Lectures</b>	<b>Exercises</b>	<b>OFE</b>	<b>Study and research work</b>	<b>Other classes</b>
2	1	0		
<b>Teaching methods</b>		Lectures, consultations, independent study research.		
<b>Grade (maximum number of points 100)</b>				
<b>Pre-exam duties</b>		<b>Points</b>	<b>Final exam</b>	<b>Points</b>
<b>Activity during lectures</b>			<b>Written exam</b>	
<b>Exercises</b>		30	<b>Oral exam</b>	40
<b>Colloquia</b>				
<b>Projects</b>		30		