1.	Course Title	Computer Animation		
2.	Code	F18L3S113		
3.	Study program	Software engineering and information systems		
4.	Study Program Organizer	Faculty of Computer Science and Engineering		
5.	Degree (first, second, third cycle)	first cycle		
6.	Academic year / semester 4 / summer / optional	7. ECTS credits 6		
8.	Teacher	associate professor Ivan Chorbev		
9.	Course enrollment prerequisites	Компјутерска графика или Дизајн на интеракцијата човек-компјутер		
10.	Course program goals (competencies): After the completion of the course it is expected for students to be capable of using basic methods for productive creation of computer based animations and working with applications for creating animations. They should be able to model, apply textures, rig, add lights, animate, render and compose digital scenes.			
11.	Course program content: Basic principles of 3D space, describing digital scenes, hierarchical organization, polygonal geometry, modeling of digital objects and characters, NURBS modeling, deformation techniques, rigging of objects and characters, principles of animation, animating digital characters, shading and materials, texturing, UV coordinates, lights in digital scenes, cameras, scripting and automation, compositing and post-production.			
12.	Learning methods: Lectures using presentations, interactive lectures, exercises (using equipment and software packages), teamwork, case studies, invited guest lecturers, independent preparation and defense of a project assignment and seminar work.			
13.	Total available time	6 ECTS x 30 hours = 180 hours		
14.	Distribution of the available time	30 + 45 + 15 + 15 + 75 = 180 hours		
15.	Teaching activity forms	15.1.	Lectures – theoretical teaching	30 hours
		15.2.	Exercises (laboratory, auditory), seminar papers, teamwork	45 hours
16.	Other activity forms	16.1.	Project Tasks	15 hours

		16.2.	Independent Learning Tasks	15 hours
		16.3.	Home learning	75 hours

17.	Assessment methodology		
	17.1.	Tests	10 points
	17.2.	Seminar paper/project (presentation: written and oral)	10 points
	17.3.	Activity and learning	10 points
	17.4.	Final exam	70 points

18.	Assessment criteria (points/grade)	up to 50 points	5 (five) (F)
		51 to 60 points	6 (six) (E)
		61 to 70 points	7 (seven) (D)
		71 to 80 points	8 (eight) (C)
		81 to 90 points	9 (nine) (B)
		91 to 100 points	10 (ten) (A)
19.	Course completion and final exam requirements	Realized activities 15.1 and 15.2	
20.	Teaching Language	Macedonian and English	
21.	Teaching quality evaluation method	Internal evaluation mechanisms and questionnaires	

22. Course Material

22.1. Mandatory course material

No.	Author	Title	Publisher	Year
1	Rick Parent	Computer Animation: Algorithms and Techniques, 3rd Edition	Newnes	2012
2	Akenine-Möller, Tomas, Eric Haines, Naty Hoffman	Real-time rendering	CRC Press	2008
3	Jeremy Birn	Digital Lighting and Rendering (3rd Edition)	New Riders	2013

22.2. Additional course material

No.	Author	Title	Publisher	Year