

Course title	Advanced 3D Modeling and Animation			
Course code	BIMA-370			
Course type	Compulsory			
Level	1st Cycle			
Year / Semester	3rd			
Teacher's name	Hara Kyprianou			
ECTS	6	Lectures / week	12	Laboratories / week
Course purpose and objectives	<p>The main objectives of the course are to:</p> <ol style="list-style-type: none"> 1. Demonstrate advanced skills in character modeling by creating detailed and realistic 3D characters. 2. Apply comprehensive UV layout and texturing techniques to enhance characters with intricate and lifelike surface details. 3. Analyze and implement advanced shading, lighting, and rendering techniques to achieve a high level of visual realism. 4. Develop proficiency in rigging and skinning by designing characters with realistic movement and deformation. 5. Refine advanced animation skills to bring characters to life with fluid and expressive movements. 			
Learning outcomes	<p>After completion of the course students are expected to be able to:</p> <ul style="list-style-type: none"> • Create characters, environments and animations • Tell a story through their work • Create a 3D animated sequence • Use key-framing techniques in character animation. • Use the principles of animation to create short, animated clips. 			
Prerequisites	BIMA-361	Required		
Course content	Class Overview - Study materials. Preproduction: concept art, environment designs and scripts. Shading, lighting, and rendering. Hierarchy and parenting systems. Animation. Rendering with Arnold			
Teaching methodology	Lectures, lab presentations, lab tutorials and workshops, individual/group tutorials, practical exercises, assignments and projects.			
Bibliography	<p>The Animator's Survival Kit by Richard Williams, London: Faber and Faber, 2009, ISBN: 978-0571202287</p> <p>Anatomy for 3D Artists: The Essential Guide for CG Professionals by Chris Legaspi, 3D Total Publishing, 2015, ISBN: 978-1909414242</p>			

	Cartoon Animation by Preston Blair, Walter Foster Publishing, 1994, ISBN: 978-1560100843 Unmasking the Face by Paul Ekman, Malor Books, 2003, ISBN: 978-1883536367 The Illusion of Life: Disney Animation by Frank Thomas and Ollie Johnston, Disney Editions, 1981, ISBN: 978-0786860708
Assessment	Assignments, class exercises, research, final project, class attendance and performance.
Language	English