

COURSE OUTLINE

1. GENERAL

SCHOOL	APPLIED SCIENCES		
DEPARTMENT	DIGITAL MEDIA AND COMMUNICATION		
LEVEL OF STUDY	UNDERGRADUATE		
COURSE UNIT CODE	DMC 425	SEMESTER OF STUDY	
COURSE TITLE	CREATIVE ANIMATION		
COURSEWORK BREAKDOWN		TEACHING WEEKLY HOURS	ECTS Credits
Lectures		2	
Practice - Workshops		1	
Lab exercises		2	
Total		5	5
COURSE UNIT TYPE	Compulsory, Special Course Infrastructure		
PREREQUISITES :	-		
LANGUAGE OF INSTRUCTION/EXAMS:	GREEK		
COURSE DELIVERED TO ERASMUS STUDENTS	Yes (in English)		
MODULE WEB PAGE (URL)	TBA		

2. LEARNING OUTCOMES

Learning Outcomes
<p>The course introduces the student to the types of animation and the basic principles of creating 2D and 3D animation. The course focuses on modern techniques used to create animation and on software packages used for the design and production of 2D and 3D animation. Students will also be exposed to hands on practice through laboratory exercises</p> <p>Upon successful completion of the course the students must be able to</p> <ol style="list-style-type: none"> 1. Understand and compare the various types of animation, the basic principles of animation creation and advanced techniques used in the production process 2. Evaluate and propose types of animation to broadcast targeted messages for communication purposes (promotion, information dissemination). 3. Evaluate and select the appropriate tools to create the desired animation for specific communication goals. 4. To use graphic design and image processing packages that were taught in previous semesters in combination with animation creation software. 5. Creating various types 2D animation (cel animation, keyframe animation) using appropriate software 6. Understand the basics functions of software used for the creation of 3d animation 7. To adapt to developments in the area of animation creation
General Skills
<ul style="list-style-type: none"> - Teamwork - Critical thinking - Working in interdisciplinary field - Free, creative and inductive thought - Search, Analysis and Synthesis of data and information with the use of necessary technologies.

3. COURSE CONTENTS

<ul style="list-style-type: none"> • Mile stones in the evolution of animation • The role of animation in communication • Types of 2D animation (cel animation, path based animation) • Software tools for animation creation. • Introduction to 3D animation. The basic principles of 3D animation creation. 3D modeling and rendering. • Techniques in animation creation (e.g key framing, rigging, motion capture, morping, warping, simulations etc • Creation of 2D animation (e.g animated gifs) and 3D animation using the appropriate software packages in combination with software packages used for the creation of vector images which were taught in previous semester.
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4. TEACHING METHODS - ASSESSMENT

MODE OF DELIVERY	In-Class	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	<p>Students work with Animation Development Software</p> <p>Support of the learning process through multimedia video-lessons.</p> <p>Support of the learning process through the e-class platform.</p>	
TEACHING METHODS	Method description	Semester Workload
	Lectures	26
	Lab Exercises	26
	Practice - Workshops	13
	Project Work (non-compulsory)	24
	Personal Study	36
	Total Work Load for student with project work	125
	Lectures	26
	Lab Exercises	26
	Practice - Workshops	13
	Personal Study	60
	Total Work Load for student with project work	125
	ASSESSMENT METHODS	<p>i. End of Semester Formal Examination (60-35%)</p> <ul style="list-style-type: none"> - Short answer questions - Essay questions - Questions of solving communication problems. <p>II. Presentation of Group/Individual Projects (0-25%)</p> <p>iii .Lab examination 40 %</p>

5. RESOURCES

- Recommended Book Resources:

- Moore, Helen (2009). Frame by Frame. Athens: Nexus Publications S.A.
- Vasileiadis I. (2006) Animation, I. Soldatos Publications.
- Adobe Creative Team (2012) Adobe Flash Professional CS6: Classroom in a Book, CA, USA.
- Rodriguez D. (2012), Animation Methods, CreateSpace Independent Publishing Platform.

- Williams R. (2012) *The Animator's Survival Kit*, Faber and Faber.
- Winder, C., Dowlatabadi, Z., (2011), *Producing Animation*, Focal Press
- Romanelli D. (2005) *Draw the Looney Tunes*, Chronicle Books.
- Goldberg E. (2008) *Character Animation Crash Course*, Silman-James Press.
- Parent R. (2012) *Computer Animation: Algorithms and Techniques*, Morgan Kaufman, MA, USA.
- Krasner Jon (2013) *Motion Graphic Design: Applied History and Aesthetics*, Focal Press, Burlington.

-Συναφή επιστημονικά περιοδικά:

- Gao Y. (2013), *Web Animation Design Teaching Based on Reverse Analysis Method*, Proceedings of the 2nd International Conference on Green Communications and Networks 2012 (GCN 2012): Volume 2, Lecture Notes in Electrical Engineering Volume 224, 2013, pp 793-800
- Xiaoping Liu; Li, Lin; Lu, Jinting; Du, Lin; Shen, Guangting (2010), *A preliminary study on collaborative methods in animation design*, 14th Int. Conf. on Computer Supported Cooperative Work in Design, Shanghai, pp 764-771
- J. Pan, J.J. Zhang (2011), *Sketch-Based Skeleton-Driven 2D Animation and Motion Capture*, Transactions on Edutainment VI, Lectures Notes on Computer Science 675, pp. 164-181.
- Daniel Fallman and Camille Moussette. (2011). *Sketching with stop motion animation*. *interactions* 18 (2), pp. 57-61.
- Tingting Yin; Danli Wang; Kun Yu; Hao Wang (2010), *Sketch Animation Techniques and Applications Based on Mobile Devices*, Asia Pacific Conf. on Wearable Computing Systems, 17-18 Apr. Shenzhen, pp. 78-81.
- Moscovich, T., Hughes, J.F. (2003) *Animation sketching: An approach to accessible animation*. Technical report, Brown University.
- Davis R., (2002) *Sketch Understanding in Design: Overview of Work at the MIT AI Lab*, 2002 AAAI Spring Symposium on Sketch Understanding, 24-31.