



"CDICAE - Collaboration to Design an Innovative Curriculum for Animation Education - 2017-1-TR01-KA203-046117 " project carried out by Republic of Turkey Ministry of EU Affairs, Education and Youth Programs Center Presidency and Erciyes University Faculty of Fine Arts, Visual Communication Design Department within the scope of the Collaboration for Innovation and Exchange of Good Practices within the framework of Strategic Partnerships for ERASMUS+ Program KA2 Higher Education Programs.



Course Syllabus

(03. Animating in VR Course)

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Course Curriculum 3, Animation in VR (Animating in VR)

Animation Course Curriculum with Virtual Reality Spring, 2019 - GRF.SU442 Instructor Information

Instructor
Öğr. Gör. Kürşat SAVAŞ

Email
tgaworks@gmail.com

Office Location&Hours
GSF-No:+90352 207 6666
D:34210, 13:00-17:00, Thursday

General Information

Description

This course consists of examining the technical aspects of animation making in 3D Field with VR Field. Students will experience animating a ready-made 3D rigid character in virtual Field using VR tools according to animation principles. They will realize their projects by group or individual work.

Expectations and Targets

At the end of this course, students will learn to apply animation principles using the 3D character previously prepared by using VR tools in virtual reality Field. The student will gain the technical knowledge and understanding that they can enliven with a 3D character outside the physical world borders and outside the traditional computer Field in an immersive and interactive Field.

Course Credits (ECTS)	Course Hours	Theoretical	Practical (Hours)
3 Credit	3 hours	2 hours	1 hours
Course Type	Core []	Elective [X]	Minor []

Course Materials

Required Materials

All necessary hardware and software are available for student use in the faculty laboratory. Students must make an appointment for long-term use.

VR cap set (HTC Vive or OculusRift)

Animation software and tools (Autodesk Maya 2018 Student version), Autodesk maya plugin (MARUI) FOR VR

Optional materials

Students can install additional tools or software they want to use on computers, with the approval of the lab assistant. In this case, it is the student's responsibility to declare that he has a software license.

- **MARUI plug-in software, Inst. See. Kürşat SAVAŞ**
- **Autodesk Maya 2018 Student version, Inst. See. Kürşat SAVAŞ**
- **Oculusrift basic drivers, Inst. See. Kürşat SAVAŞ**

Course Schedule

Week	Topic	Reading
1	Understanding VR technology components and VR usage possibilities in the 3D animation industry.	R.1, R.2
2	To introduce the software required to use the VR hardware and to prepare the VR device to be used.	R.2
3	Introduction of "Autodesk Maya" and "Marui" plugin in VR Field and preparation of maya interface in VR Field.	
4	"MARUI INTERFACE USE" presentation in VR Field.	
5	Studio Studies - 3D animation training in virtual Field "Project Management with Preparation phase"	R.6 (page 58-60) R.5 (page 35-38)
6	Studio Studies - 3D animation training in virtual Field "12 principles in animation"	R.7 R.9(chapter 1)
7	Studio Studies - 3D animation training in virtual Field "12 principles in animation"	R.8 R.9 (Chapter 2)
8	Midterm	
9	Midterm	
10	Studio Studies - 3D animation training in virtual Field "12 principles in animation"	R.9 (chapter 3)
11	Studio Studies - 3D animation training in virtual Field "12 principles in animation"	R.9 (chapter 4)
12	Studio Studies - 3D animation training in virtual Field "12 principles in animation"	R.9 (chapter 5-6)
13	Studio Studies - 3D animation training in virtual Field "12 principles in animation"	R.9 (chapter 7-8)
14	Studio Studies - 3D animation training in virtual Field "12 principles in animation"	R.9 (chapter 9-10)
15	Studio Studies - 3D animation training in virtual Field "12 principles in animation"	R.9 (chapter 11-12)
16	Final examination	
17	Final examination	

Evaluation

Summary of Assessment Methods

The evaluation of this course is based on the performance of the tools used in the VR Field and the ability to apply animation principles to the ready-made 3D character: the first performance is the evaluation of how correctly they apply the learned animation principles in the ready character, and it is accepted as a midterm exam. The second performance is that they present the revitalization they produce individually with a ready character before the jury and are considered as the final exam. Exams are measured over 100 points.

Evaluation Plan

Exam	Topic			
Midterm Project 1	Performance to apply animation principles	%60	Midterm% 40	Total %100

Exam	Topic			
	Performance of using VR hardware	%40		
Final project 1	Performance to apply animation principles	%60		Total %100
	Performance of using VR hardware	%40	Final %60	

EXAM SCHEDULE

Week	Dates	Time	Subject
8	02.04.2019	14:00	Midterm Exam
9	09.04.2019	14:00	Midterm Exam
16	21.05.2019	11:00	Final Exam
17	28.05.2019	11:00	Final Exam

Learning Outputs

Technical and Theoretical Aspects

Students who successfully complete this course:

Will be able to use the vr technology as a new tool in the production of 3d digital content.

Compare the advantages and disadvantages of creating 3d content in the virtual Field compared to the traditional pc Field.

Various practical qualifications, including simple Basic information:

- Autodesk maya, Marui Plugin, Oculus Medium etc. learn their programs so that they can produce 3d content in virtual Fields..
- Learn to create new ways to produce 3d animation in immersive virtual reality Fields that can be experienced with Oculus Rift and HTC Vive headphones.

Additional Information andResources

Articles / Blogs/Video Resources

Students are advised to review the following documents before attending classes.

R1. R1_tr_SANAL_GERCEKLIK_VE_UYGULAMA_ALANLARI.pdf

<https://www.researchgate.net/publication/237599951>

R1_EN_InTech_UnderstandingVirtualRealityTechnology

<https://www.researchgate.net/publication/221911335>

R2. EK_1A_TR_Sanal-Gerçeklik-Donanim ve Kurulum-Talimatlar Kilavuzu

EK_1A_EN_Virtual-Reality-Setup-Instructions-and-Troubleshooting-Guide

www.lib.ua.edu/wp-content/uploads/Virtual-Reality-Setup-Instructions-and-Troubleshooting-Guide.pdf

www.marui-plugin.com/documentation/

R3. Maya-GENEL_KULLANIM_

R4. ArtofMaya(TUTORIALS and SETUP) www.youtube.com/channel/UCQr-JJK4hjUJJe-IMnqR0fg

R5. Mastering Autodesk Maya 2016

R6. Autodesk Maya 8 (gettingstarted)

R7. Animasyonun_12_Prensibi https://www.academia.edu/4937958/Animasyonun_12_Prensibi

R.8 12AnimationPrinciples.pdf

https://www.evl.uic.edu/datsoupi/251_15/docs/12AnimationPrinciples.pdf

R.9 Twelve_Principles_SMC2017.pdf

https://www.spaceducators.com/sites/default/files/slides/Twelve_Principles_SMC2017.pdf

Artists

- Carlos Baena
<https://carlosbaena.com/resources>

Online Resources

VR Experiences

<https://www.oculus.com/experiences/rift>

<https://www.vive.com/us/product-experiences/>

<https://www.transportvr.com/>

<http://www.nytimes.com/marketing/nytvr/>

MaruiPlugin

www.marui-plugin.com/documentation/

(TUTORIALS and SETUP) <https://www.youtube.com/channel/UCQr-JJK4hjUJJe-IMnqR0fg>

www.marui-plugin.com/support/

Autodesk Maya

knowledge.autodesk.com/support/maya/getting-started/caas/simplecontent/content/maya-documentation.html

<https://blog.animationmentor.com/animation-mentor-and-the-12-basic-principles-of-animation/>

<https://www.animationmentor.com/workshops/maya-workshop-animation-basics/>

<https://blog.animationmentor.com/arc-the-12-basic-principles-of-animation/>