

BASIC DETAILS:

Subject:	DISEÑO 3D AVANZADO		
Id.:	31395		
Programme:	GRADUADO EN DISEÑO Y DESARROLLO DE VIDEOJUEGOS. 2013 (BOE 28/03/2014)		
Module:	DISEÑO VISUAL		
Subject type:	OPTATIVA		
Year:	4	Teaching period:	Segundo Cuatrimestre
Credits:	6	Total hours:	150
Classroom activities:	72	Individual study:	78
Main teaching language:	Inglés	Secondary teaching language:	Castellano
Lecturer:	LOPEZ ZARAGOZA, MOISES (T)	Email:	mlopezz@usj.es

PRESENTATION:

Following this subject we will go through some of the most used software in the videogame industry regarding 3D art. Obtain the necessary knowledge to feel capable and confident in a professional scenario, giving rise at the same time to art and aesthetic vision, being part of the creative process that involves 3D sculpting, texturizing, baking textures, retopologies, rendering, etc.

PROFESSIONAL COMPETENCES ACQUIRED IN THE SUBJECT:

General programme competences	G07	Ability to handle different complex knowledge models through a process of abstraction and its application to approach and solve problems.
	G10	Ability to master information and communication technologies and their application in their professional field.
Specific programme competences	E24	Ability to specially visualise and have knowledge of the graphical representation techniques, both in terms of traditional methods of metrical geometrics and descriptive geometrics using computer-assisted design application.
	E25	Ability to design and create graphical elements and their application in the development of video games.
	E26	Ability to perform the design and creation of animated characters and their application in the development of video games.
Learning outcomes	R01	Understand and manage advanced tools for 3D design.
	R02	In-depth study and editing of complex natures, double and triple curvature surfaces.
	R03	Create environments and atmospheres for a fully digital world.
	R04	Learn communication and graphic-plastic persuasion through 3-D information technology and post-production support for final viewing.

PRE-REQUISITES:

Pasion and interest for videogames, their art, design and aesthetics. Creativity and imagination. Basic knowledge of a 3D program and 3D geometry basic components.

SUBJECT PROGRAMME:

Subject contents:

1 - SUBJECT INTRODUCTION
1.1 - 3D in videogames, what and why its important
1.2 - Students tastes and abilities
2 - 3D MODELING
2.1 - Maya 2020
2.2 - Blender
2.3 - Zbrush
3 - TEXTURING
3.1 - Substance Designer

3.2 - Substance Painter
4 - RENDER
4.1 - Texture Maps and baking
4.2 - Scene
4.3 - Render

Subject planning could be modified due unforeseen circumstances (group performance, availability of resources, changes to academic calendar etc.) and should not, therefore, be considered to be definitive.

TEACHING AND LEARNING METHODOLOGIES AND ACTIVITIES:

Teaching and learning methodologies and activities applied:

Theory sessions

This kind of classes will focus on presenting new concepts and software for which the student will need theory backup to start using them. Each program is packed up with a large variety of tools and some times confusing interface. The objective of these sessions is to show as clear and easy as possible all the programs capabilities, and to solve all the doubts and problems the students can come up with. That's why this short, fast paced theory presentations are crucial to the students development.

Practice sessions

3D work requires a huge amount of time, effort and work. During class time, we will work through the different exercises and projects that will be shown throughout the course lifetime, this way, the student can be guided in the process, and problem solving is much more meaningful and easy.

Tutorial sessions

Tutorial hours will be mainly focused on problem and doubt solving, as well as providing a platform for students to seek general guidance.

Integration of English language in the subject

This class will be completely in english, following CLIL basis and methodology of integrating language in classrooms.

Student work load:

Teaching mode	Teaching methods	Estimated hours
Classroom activities	Master classes	19
	Other theory activities	4
	Practical exercises	6
	Practical work, exercises, problem-solving etc.	18
	Debates	2
	Coursework presentations	4
	Workshops	2
	Other practical activities	10

	Assessment activities	7
Individual study	Tutorials	3
	Individual study	12
	Individual coursework preparation	18
	Group coursework preparation	6
	Project work	33
	Research work	2
	Portfolio	4
	Total hours:	150

ASSESSMENT SCHEME:

Calculation of final mark:

Written tests:	20 %
Individual coursework:	45 %
Group coursework:	20 %
Final exam:	15 %
TOTAL	100 %

*Las observaciones específicas sobre el sistema de evaluación serán comunicadas por escrito a los alumnos al inicio de la materia.

BIBLIOGRAPHY AND DOCUMENTATION:

Basic bibliography:

Recommended bibliography:

SPENCER, Scott. ZBrush Character Creation: Advanced Digital Sculpting. John Wiley & Sons Ltd, 2008
SPENCER, Scott. ZBrush Digital Sculpting: Human Anatomy. John Wiley & Sons Ltd, 2010
WILLAIMSON, Jonathan. Character Development in Blender 2.5. Course Technology PTR; 1 edition 2011
PALAMAR, Todd; KELLER, Eric. Mastering Autodesk Maya 2012. John Wiley & Sons Ltd; Edición: 1 2011
VAUGHAN, WILLIAM. Digital Modeling. Pearson Education (Us); Edición: 01, 2011
LEGASPI, CHRIS. Anatomy for 3D Artists. Ingram Publisher Services, 2015

Recommended websites:

Sketchfab	https://sketchfab.com
Textures	https://www.textures.com/
Jan Jinda	http://janjinda.com/
Artstation	https://www.artstation.com/