Information about the course

Degree: Degree in Design and Narration in Animation and Video games

Faculty: Faculty of Legal, Economic and Social Sciences

Code: 2050325 **Name:** 3D Digital sculpture and character modelling I

Credits: 6,00 ECTS **Year:** 2 **Semester:** 2

Module: MODELADO Y ANIMACIÓN EN TRES DIMENSIONES.

Subject Matter: MODELADO EN TRES DIMENSIONES **Type:** Obligatoria

Branch of knowledge:

Department: Multimedia and Digital Arts

Type of learning: Classroom-based learning

Language/-s in which it is given: Spanish

Teachers:

2052A	Gonzalo Codoñer Contell **(Profesor responsable)**	gonzalo.codoner@ucv.es

Module organization

MODELADO Y ANIMACIÓN EN TRES DIMENSIONES.

Subject Matter	ECTS	Subject	ECTS	Year/semester
MODELADO EN TRES DIMENSIONES	24	3D Digital sculpture and character modelling I	6	2/2
		3D Digital sculpture and character modelling II	6	3/1
		3D modelling and representation I	6	1/2
		3D modelling and representation II	6	2/1
ANIMACIÓN EN TRES DIMENSIONES	18	3D Animation	6	2/2
		3D Character Animation I	6	3/1
		3D Character Animation II	6	3/2

Recommended knowledge

It's recommended to have a basic understanding of drawing, perspective, and basic human anatomy. It's also advisable to have a basic understanding of the analysis and simplification of shapes and volumes.

Other types of requirements

• Es recomendable para cursar la asignatura Modelado y representación en 3D II haber superado la asignatura Modelado y representación en 3D I.
• Es recomendable para cursar la asignatura Modelado de personajes y esculpido digital en 3D I haber superado las asignaturas Modelado y representación en 3D I y Modelado y representación en 3D II.
• Es recomendable para cursar la asignatura Modelado de personajes y esculpido digital en 3D II haber superado la asignatura Modelado de personajes y esculpido digital en 3D I.

Learning outcomes

At the end of the course, the student must demonstrate having acquired the following learning outcomes:

-

Learning outcomes of the specified title

Type of AR:

-

Assessment system

In-person modality

Assessed learning outcomes	Granted percentage	Assessment tool
	20,00%	SE1 – Written exams.
	50,00%	SE6 – Practical exams.
	30,00%	SE8 – Project development.

Observations

CRITERIA FOR GRANTING THE MATRICULATION WITH HONOR: According to Article 22 of the Regulations Governing the Evaluation and Grading of UCV Subjects, the "Matrícula de Honor" mention may be awarded by the professor in charge of the subject to students who have obtained an "Outstanding" grade. The number of "Matrícula de Honor" mentions that may be awarded may not exceed five percent of the students included in the same official transcript, unless the number is less than 20, in which case only one "Matrícula de Honor" may be awarded.
SINGLE ASSESSMENT:In accordance with Article 9 of the General Regulations for the Assessment and Grading of Official Studies and UCV-Owned Degrees, a single assessment is linked to the inability of students enrolled in a face-to-face degree program to attend. It is, therefore, an extraordinary and exceptional assessment system available to students who, with justification and accreditation, are unable to submit to the continuous assessment system. Students may apply for this option if they request it from the professor in charge of the subject, who will expressly decide whether to accept the student's request for a single assessment and will inform them of the acceptance/denial.Regarding the subject of Character Modeling and 3D Digital Sculpting I, the minimum attendance rate required is 50%. This is the limit to be taken into account for any potential request for a single assessment. If granted, this will be based on the following criteria:In the first call:- 70% Written Test- 30% Project DevelopmentIn the second call:- 80% Written Test- 20%

Project Development
USE OF ARTIFICIAL INTELLIGENCE: Regarding the use of Artificial Intelligence in the 3D Character Modeling and Digital Sculpting I course, it is strictly prohibited for any type of task without the express permission of the instructor.

MENTION OF DISTINCTION:

The mention of “Honors” may be awarded to students who have obtained a grade equal to or greater than 9.0. Their number may not exceed five percent of the students enrolled in a group in the corresponding academic year, unless the number of students enrolled is lower.

Training activities

The methodologies to be used so that the students reach the expected learning outcomes will be the following:

M2 MD2: Interactive lecture

M6 MD6: Project-based learning

IN-CLASS TRAINING ACTIVITIES

ACTVITY	RELATIONSHIP WITH THE COURSE LEARNING OUTCOMES	METHODOLOGY	HOURS	ECTS
AF2 – Active listening, elaboration and formulation of questions, summaries, concept maps and/or notes that organize the information received, and related work.	R17, R18, R21	MD2: Interactive lecture	9,00	0,36
AF6 – The student, individually or collectively, focuses on producing a tangible final result (product) that incorporates the knowledge and skills necessary for its realization.	R17, R18, R21	MD6: Project-based learning	51,00	2,04
TOTAL			**60,00**	**2,40**

TRAINING ACTIVITIES OF AUTONOMOUS WORK

ACTVITY	RELATIONSHIP WITH THE COURSE LEARNING OUTCOMES	METHODOLOGY	HOURS	ECTS
AF8 – Independent work. Study, memorization, exam preparation, practice of practical skills, preparation of assignments, essays, reflections, metacognitive activities, portfolio development, etc.			15,00	0,60
AF6 – The student, individually or collectively, focuses on producing a tangible final result (product) that incorporates the knowledge and skills necessary for its realization.			75,00	3,00
TOTAL			**90,00**	**3,60**

Description of contents

Description of content necessary for the acquisition of learning outcomes.

Theoretical content:

Block of content	Contents
Introduction to and Use of ZBrush	Introducing the industry's leading digital sculpting software.
Creating a Simple Cartoon-Style Character	First organic modeling exercise with ZBrush. Modeling a simple character using the software's basic tools
Basic Stylized Anatomy	First block of stylized character modeling. Modeling the character's anatomy.
Creating clothing and assets (outfit)	Second block of modeling a stylized character. Modeling the character's clothing and assets.
Geometry Preparation for Production (Low Poly)	Third block of modeling a stylized character. Preparing a character's geometry for optimal use in a rendering engine or video game.
Texture projection onto low-poly geometry (bakes).	Fourth modeling block of a stylized character. High-resolution model detail projection onto optimized, clean geometry.
Basic Stylized Texturing	Fifth block of stylized character modeling. Introduction to texturing and texture painting using Substance Painter software.
Character presentation (posing and renderings)	Sixth and final block of stylized character modeling. Preparing a 3D scene to present the final model.

Temporary organization of learning:

Block of content	Sessions	Hours
Introduction to and Use of ZBrush	6	12,00
Creating a Simple Cartoon-Style Character	4	8,00
Basic Stylized Anatomy	5	10,00
Creating clothing and assets (outfit)	4	8,00
Geometry Preparation for Production (Low Poly)	3	6,00
Texture projection onto low-poly geometry (bakes).	2	4,00
Basic Stylized Texturing	4	8,00
Character presentation (posing and renderings)	2	4,00

References

3DTotalPublishing. (2020). Anatomía para artistas 3D, la guía esencial para profesionales de la infografía. Anaya Multimedia.

3DTotalPublishing. (2018). Creating Stylized Characters. 3DTotalPublishing.

Zarins, Uldis. (2021). Form of the Head and Neck, anatomy for professional artists. Anatomy4sculptors.

Zarins, Uldis. (2017). Anatomy of facial expression. Exonicus.

Zarins, Uldis. (2014). Anatomy for sculptors, understanding the human figure. Exonicus.

Hamm, Jack. (1963). Drawing the head and figure. The Berkley Publishing Group.

Mattesi D., Michael. (2003, 2004). Force, the key to capturing life thtough drawing. Iuniverse Star.

Loomis, Andrew. Dibujo de cabeza y manos.

Loomis, Andrew. (1951). Successful Drawing.

Loomis, Andrew. Figure Drawing For All It's Worth.

Bridgman, George. Complete guide to drawing from life.

Bammes, Gottfried. (2017). The complete guide to anatomy for artists and ilustratrors. Search Press Limited.

Hampton, Michael. (2009). Figure drawing, design and invention. M. Hampton.