Information about the course

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

Faculty: Faculty of Legal, Economic and Social Sciences

Code: 2050434 **Name:** Online game programming

Credits: 6,00 ECTS **Year:** 4 **Semester:** 1

Module: PROGRAMACIÓN DE VIDEOJUEGOS

Subject Matter: PROGRAMACIÓN **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:

2054A	Fernando Ruiz Velarde **(Profesor responsable)**	fernando.ruiz@ucv.es

Module organization

PROGRAMACIÓN DE VIDEOJUEGOS

Subject Matter	ECTS	Subject	ECTS	Year/semester
FUNDAMENTOS DE LA PROGRAMACIÓN	12	Arithmetic foundations of video game programming	6	3/1
		Programming foundations	6	3/1
PROGRAMACIÓN	30	2D video game programming	6	3/2
		3D video game programming	6	4/1
		Artificial Intelligence for Video Games	6	4/1
		Online game programming	6	4/1
		Virtual reality	6	4/2

Recommended knowledge

Knowledge of programming (variables, functions and control structures, animation, working with images), seen in the subject "Fundamentals of programming"

Other types of requirements

Para cursar las asignaturas: Programación de videojuegos 3D, Inteligencia artificial para videojuegos, Programación de juegos en red y Realidad virtual, se recomienda haber superado las asignaturas de: Fundamentos de programación y Fundamentos aritméticos para programación de videojuegos.

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
R3, R4	10,00%	SE1 – Written exams.
R3, R4	30,00%	SE6 – Practical exams.
R3, R4	60,00%	SE8 – Project development.

Observations

In accordance with the development guidelines of the General Regulations for the Evaluation and Qualification of Official Teachings and Own Degrees of the UCV, in face-to-face degrees, class attendance with a minimum of 80% of the sessions of each subject will be required as a requirement. to be evaluated. This means that, if a student does not attend the sessions of each subject, in a percentage greater than 20%, he/she will not be able to be evaluated, neither in the first nor in the second call, unless the person responsible for the subject, with the approval of the person responsible for degree, in view of duly justified exceptional circumstances, exempt from the minimum attendance percentage.The same criterion will be applicable for hybrid or virtual degrees in which teachers must maintain the same percentage in the requirement of “presence” in the different training activities, if any, even if these are carried out in virtual environments.
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.
According to article 9 of the General Regulations for the Evaluation and Qualification of Official Teachings and Own Degrees of the UCV, the continuous evaluation system is the preferred evaluation system at the UCV. The art. 10 allows, however, for those students who in a justified and accredited manner express their inability to attend in person (or to synchronous communication

activities for virtual and/or hybrid teaching modalities), their evaluation on an extraordinary basis in the so-called single evaluation. Said single evaluation must be requested within the first month of each semester to the Dean of Faculty through the Vice-Deaneries or Master's Directorates, with the express decision on the admission of said request from the student concerned being the responsibility of the latter.
For the Digital Photography subject, the evidence to be presented and/or the test/s to be carried out in the single evaluation by the student that are established are: Completion of theoretical-practical activities 60% and Final exam 40%.
The use of Artificial Intelligence tools will be subject to the teacher's instructions, who will determine in each activity or exercise whether their use is permitted and under what conditions.

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

M4 MD4: Problem-solving exercises

M5 MD5: Case studies

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.	R3, R4	MD2: Interactive lecture MD4: Problem-solving exercises MD5: Case studies MD6: Project-based learning	12,00	0,48
AF5 – Analysis of exemplary realities — real or simulated — allowing the student to connect theory with practice, learn from real-world models, or reflect on the processes used in the presented cases.	R3, R4	MD2: Interactive lecture MD4: Problem-solving exercises MD5: Case studies MD6: Project-based learning	12,00	0,48
AF6 – The student, individually or collectively, focuses on producing a tangible final result (product) that incorporates the knowledge and skills necessary for its realization.	R3, R4	MD4: Problem-solving exercises MD6: Project-based learning	36,00	1,44
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.	R3, R4	MD4: Problem-solving exercises MD5: Case studies MD6: Project-based learning	16,00	0,64
AF6 – The student, individually or collectively, focuses on producing a tangible final result (product) that incorporates the knowledge and skills necessary for its realization.	R3, R4	MD6: Project-based learning	56,00	2,24
AF5 – Analysis of exemplary realities — real or simulated — allowing the student to connect theory with practice, learn from real-world models, or reflect on the processes used in the presented cases.	R3, R4	MD5: Case studies MD6: Project-based learning	18,00	0,72
TOTAL			**90,00**	**3,60**

Description of contents

Description of content necessary for the acquisition of learning outcomes.

Theoretical content:

Block of content	Contents
Content	-Network typologies.-Local networks and Internet.-Client/server model.-P2p model.-TCP/UDP Communications-Data format

Temporary organization of learning:

Block of content	Sessions	Hours
Content	30	60,00

References