

# Teaching guide

## IDENTIFICATION DETAILS

Degree:	Degree in Video Game Design		
Field of Knowledge:	Social and Legal Sciences		
Faculty/School:	Communication Sciences		
Course:	CREATION OF ENVIRONMENTS AND AVATARS		
Type:	Compulsory	ECTS credits:	6
Year:	3	Code:	4674
Teaching period:	Sixth semester		
Subject:	Artistic Expression		
Module:	Digital Creation and Expression Processes		
Teaching type:	Classroom-based		
Language:	Spanish		
Total number of student study hours:	150		

## SUBJECT DESCRIPTION

This course develops the different techniques and processes that culminate in the creation of a 3D game scenario, as well as its avatars or game characters.

To this end, it integrates much of the knowledge learned in other subjects such as 'Use and Management of Editors and Graphic Engines', 'interactive animation' or 'Infography' and is fully related to the rest of the subjects of creating 3D content, 'Introduction to 3D Design', '3D Infographic I' and '3D Infographic II'.

## GOAL

To train students to implement 3D Game Scenarios and Avatars, using the latest techniques and introducing them to the different production processes most used in the industry.

The specific aims of the subject are:

Learn about the entire process of creating a game scenario, starting from the initial design to its completion in the Master Candidate.

Learn about asset management in complex projects.

Know the different technical configurations of a game engine and how they affect its visual quality and performance.

Learn about the implementation of avatars or characters in the Game Engine, based on their model, materials and animations.

## PRIOR KNOWLEDGE

Props Modeling and Texturing

Character Modeling, Texturing, Rigging and Animation

Basic Management of Graphics Engines

## COURSE SYLLABUS

Introduction to creating scenarios and avatars.

- 1). Configuring Avatars and animations.
- 2). Scenario Creation, Design Decisions and Creation Methods: Direct Vs Modular Vs Blocking.
- 3). Textured scenery. Camera vs Resolution, Props vs Tileado.
- 4). Asset Management and Techniques for Reusing and Diversifying Elements in Max and Unity.
- 5). Creation of terrain in Unity, mix of textures, details, soil vegetation, wind, trees.

## EDUCATION ACTIVITIES

**PARTICIPATORY MASTER LESSON:** Unlike the classic master lesson, in which the weight of the teaching falls on the teacher, in the participatory master lesson we seek to get the student to go from a passive attitude to an active one, encouraging their participation. To do this, it is necessary for the teacher to carry out a good structure of the content, has expository clarity and is able to maintain the attention and interest of the student.

**AUTONOMOUS WORK.** In this methodology, the student takes the initiative with or without the help of others (teachers, colleagues, tutors, mentors). It is the student who diagnoses their learning needs, formulates their learning goals, identifies the resources you need to learn, choose and implement the strategies of adequate learning and evaluates the results of their learning. The teacher thus becomes the guide, the facilitator and in a source of information who collaborates in this autonomous work. This methodology will be of special interest for the development of research-related competencies

**COOPERATIVE WORK IN SMALL GROUPS:** The number of students scheduled in our University allows us to work as a group in small groups. Slavin defines cooperative work as 'instructional strategies in which students are divided into small groups and are evaluated according to group productivity', which puts both individual responsibility and interdependence at stake positive, basis for professional teamwork.

**TUTORIAL ACTION SYSTEM:** which includes interviews, discussion groups, self-reports and reports of tutorial monitoring.

**RESEARCH:** Search for information from various sources and documents, analysis and synthesis of data and development of conclusions

## **DISTRIBUTION OF WORK TIME**

TEACHER-LED TRAINING ACTIVITIES	INDIVIDUAL WORK
60 Horas	90 Horas

## **SKILLS**

### **Basic Skills**

Students must have demonstrated knowledge and understanding in an area of study that is founded on general secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study.

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

Ability to master information and communication technologies and to apply them in the videogame industry.

### **General Skills**

Ability to master information and communication technologies and to apply them in the videogame industry.

### **Specific skills**

Ability to develop the perseverance necessary to solve the difficulties inherent in the production of a video game.

Ability to design infographic elements in three dimensions.

Ability to handle graphic media and know its usefulness in the graphic environment of a video game.

Ability to use specific software to carry out graphic design work.

## **LEARNING RESULTS**

The student is able to manage the assets that form a complex project.

The student knows the entire process of creating a game scenario, starting from the initial design to its completion in the Master Candidate

The student is able to adjust the different technical settings of a game engine to achieve the best performance and visual quality.

The student knows the entire process of configuring and adjusting a Game Character.

## LEARNING APPRAISAL SYSTEM

Plagiarism, as well as the use of illegitimate means in evaluation tests, will be sanctioned in accordance with the university's Evaluation Regulations and Coexistence Regulations.

Ordinary call, qualification elements:

Written or oral, developmental, short answer or test-type tests: 50%

Individual and group work and exercises: 20%

Evaluation of teamwork for carrying out projects: 30%

Requirements for the ordinary call: Obtain a minimum of 5 in all qualification elements in order to pass. Attendance should not be less than 80% regardless of whether it is justified or not.

Extraordinary call.

Written or oral, developmental, short answer or test-type tests: 50%

Individual and group work and exercises: 20%

Evaluation of teamwork for carrying out projects: 30%

Requirements for the extraordinary call: Obtain a minimum of 5 in all qualification elements in order to pass.

## ETHICAL AND RESPONSIBLE USE OF ARTIFICIAL INTELLIGENCE

1.- The use of any Artificial Intelligence (AI) system or service shall be determined by the lecturer, and may only be used in the manner and under the conditions indicated by them. In all cases, its use must comply with the following principles:

a) The use of AI systems or services must be accompanied by critical reflection on the part of the student regarding their impact and/or limitations in the development of the assigned task or project.

b) The selection of AI systems or services must be justified, explaining their advantages over other tools or methods of obtaining information. The chosen model and the version of AI used must be described in as much detail as possible.

c) The student must appropriately cite the use of AI systems or services, specifying the parts of the work where they were used and describing the creative process followed. The use of citation formats and usage examples may be consulted on the Library website([https://www.ufv.es/gestion-de-la-informacion\\_biblioteca/](https://www.ufv.es/gestion-de-la-informacion_biblioteca/)).

d) The results obtained through AI systems or services must always be verified. As the author, the student is responsible for their work and for the legitimacy of the sources used.

2.- In all cases, the use of AI systems or services must always respect the principles of responsible and ethical use upheld by the university, as outlined in the [Guide for the Responsible Use of Artificial Intelligence in Studies at UFV](#). Additionally, the lecturer may request other types of individual commitments from the student when deemed necessary.

3.- Without prejudice to the above, in cases of doubt regarding the ethical and responsible use of any AI system or service, the lecturer may require an oral presentation of any assignment or partial submission. This oral evaluation shall take precedence over any other form of assessment outlined in the Teaching Guide. In this oral defense, the student must demonstrate knowledge of the subject, justify their decisions, and explain the development of their work.

## BIBLIOGRAPHY AND OTHER RESOURCES

### Basic

Volodymyr Gerasimov. Building Levels in Unity: Create exciting 3D game worlds with Unity/Birmingham:Packt Publishing, 2015.

(Volodymyr Gerasimov. Building Levels in Unity: Create exciting 3D game worlds with Unity/Birmingham:Packt Publishing, 2015. , ||Luke Ahearn. 3D Game Environments:Create Professional 3D Game Worlds/2nd ed. Boca Raton (Florida) :CRC Press, 2017. )