

Teaching guide

IDENTIFICATION DETAILS

Degree:	Degree in Video Game Design		
Field of Knowledge:	Social and Legal Sciences		
Faculty/School:	Communication Sciences		
Course:	INFOGRAPHICS		
Type:	Compulsory	ECTS credits:	6
Year:	3	Code:	4668
Teaching period:	Fifth 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 will study the methods and techniques involved in modeling and texturing, organic and inorganic, for high-quality models.

GOAL

To train students to create the different 3D elements that form the scenarios and characters of a video game, using the latest artistic techniques and introducing them to the different processes most used in the industry.

The specific aims of the subject are:

Let the student know the different processes that constitute the production of 3D art in a video game.

That the student is able to use basic and advanced modeling, mapping and texturing techniques to create the different 3D elements of a video game.

That the student is able to integrate the different 3D elements into a Game Engine.

PRIOR KNOWLEDGE

The knowledge acquired in the second-year subject 'Introduction to 3D Design' and, in a complementary way, those of 'Introduction to Digital Imaging' and 'Conceptual Representation' are essential.

COURSE SYLLABUS

Introduction. The process of producing Art in a video game or Art Workflow Pipeline.

Requirements and methods for creating ingame models in the Art production pipeline.

1. Planning and gathering references.
2. Low Poly Modeling
3. Use of smoothing groups and parametric modifiers.
4. High Poly modeling.
5. Basic creation of textures and Materials in Substance Painter,
6. Using, Modifying and Creating SmartMaterials and Generators in Substance Painter.
7. Final integration into Unity, use of shaders and maps.

EDUCATION ACTIVITIES

PARTICIPATORY MASTER LESSON: Unlike the classic master lesson, in which the burden of teaching falls on the teacher, in the participatory master class we seek

that the student moves from a passive attitude to an active one, encouraging their participation. For this, it is necessary for the teacher to carry out a good structure of the content, to be clear

expository and is able to maintain the student's attention and interest.

AUTONOMOUS WORK. In this methodology, the student takes the initiative with or without the help of others (teachers, classmates, tutors, mentors). It is the student who diagnoses their

learning needs, formulates your learning goals, identifies the resources you need to learn, chooses and implements appropriate learning strategies and evaluates

results of their learning. The teacher thus becomes the guide, the facilitator and a source of information that collaborates in this autonomous work. This methodology will be special

interest in the development of research-related competencies

COOPERATIVE WORK IN SMALL GROUPS: The number of students scheduled at our University allows us to work in small groups as a group. Slavin defines cooperative work as

'instructional strategies in which students are divided into small groups and are evaluated according to group productivity', which brings into play both individual responsibility and

positive interdependence, the basis of professional teamwork.

TUTORIAL ACTION SYSTEM: which includes interviews, discussion groups, self-reports and tutorial follow-up reports.

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 use specific software to carry out graphic design work.

LEARNING RESULTS

Learn the fundamental methods for designing 3d graphics for video games.

Master the tools for preparing 3D graphics in a video game.

Know how to choose the most correct 3D graphics creation technique to meet the needs of video game production.

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:

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

Individual and group work and exercises: 10%

Continuous evaluation of laboratory work: 10%

Evaluation of teamwork in the Laboratory for carrying out projects: 30%

Get a minimum of 5 on all grade 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: 50%

Get a minimum of 5 on all grade 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/).

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

Todd Daniel. Poly-Modeling with 3ds Max: Thinking Outside of the Box/Amsterdam: Elsevier, Focal Press, 2009.
(Todd Daniel. Poly-Modeling with 3ds Max: Thinking Outside of the Box/Amsterdam: Elsevier, Focal Press, 2009. ,
||Andrew Gahan. 3ds Max Modeling for Games: Inside's Guide to Game Character, Vehicle, and Environment
Modeling.Volume 1/2nd ed. New York: Focal Press;, 2011.)