Universitat de Lleida

DEGREE CURRICULUM

3D MODEL DEVELOPMENT

Coordination: SCHAPER , MARIE-MONIQUE ANASTASIA

Academic year 2023-24

3D MODEL DEVELOPMENT 2023-24

Subject's general information

<table>
<tr><td>Subject name</td><td>3D MODEL DEVELOPMENT</td></tr>
<tr><td>Code</td><td>102083</td></tr>
<tr><td>Semester</td><td>1st Q(SEMESTER) CONTINUED EVALUATION</td></tr>
<tr><td>Typology</td><td>
<table>
<tr><th>Degree</th><th>Course</th><th>Character</th><th>Modality</th></tr>
<tr><td>Bachelor's Degree in Digital Design and Creative Tehcnologies</td><td>3</td><td>OPTIONAL</td><td>Attendance-based</td></tr>
</table>
</td></tr>
<tr><td>Course number of credits (ECTS)</td><td>6</td></tr>
<tr><td>Type of activity, credits, and groups</td><td>
<table>
<tr><th>Activity type</th><td>PRALAB</td><td>TEORIA</td></tr>
<tr><th>Number of credits</th><td>3</td><td>3</td></tr>
<tr><th>Number of groups</th><td>1</td><td>1</td></tr>
</table>
</td></tr>
<tr><td>Coordination</td><td>SCHAPER , MARIE-MONIQUE ANASTASIA</td></tr>
<tr><td>Department</td><td>COMPUTER ENGINEERING AND DIGITAL DESIGN</td></tr>
<tr><td>Teaching load distribution between lectures and independent student work</td><td>During the course, both practice and lectures will be combined. Each class will consist of lecture classes (40% dedication) where you will learn the theory and modeling techniques, and a practical part where you will work on what you have learned, in addition to being able to work on some of the assignments.

Independent work of the student in non-present hours (60% of the dedication).</td></tr>
<tr><td>Important information on data processing</td><td>Consult this link for more information.</td></tr>
<tr><td>Language</td><td>Spanish with complementary material in English.</td></tr>
<tr><td>Distribution of credits</td><td>1 credit is equivalent to 25 hours of student work, therefore 6 credits are 150 hours.</td></tr>
</table>

3D MODEL DEVELOPMENT 2023-24

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
SCHAPER , MARIE-MONIQUE ANASTASIA	marie-monique.schaper@udl.cat	6	

Subject's extra information

Modeling, texturing and rendering of different 3D objects will be worked on with Blender Studio.

Learning objectives

- Know the different styles of art in 3D Animation

- Know the features and tools of the Blender Studio program

- Know the features and tools of the Adobe Photoshop program for texturing 3D objects

- Know the basics to create a good topology in 3D

- Knowing how to analyze different types of 3D modeling

- Perform face to face modeling and Box modeling

- Knowing how to render with Blender Studio

- Know the technical language and terminology proper to 3D design

Competences

Basic significant competences

CB1 Students have demonstrated that they have the knowledge in their area of study apart from the general secondary education base, and it is usually found at a level that, although it relies on advanced textbooks, also includes some aspects that involve knowledge from trends of his field of study.

General skills

CG3 Ability to respond to specific contexts of digital environments recognizing physical, cognitive, cultural and social factors that frame design decisions.
CG6 Know how to interact and satisfy the needs of new clients in digital contexts.

Specific skills

CE8 Capacity for the creation and exploitation of virtual worlds, and for the creation, management and distribution of multimedia content.

Transversal skills

CT3 Acquire training in the use of new technologies and information and communication technologies.

3D MODEL DEVELOPMENT 2023-24

Subject contents

Theme 1: Introduction

- Blender Studio; Interface, tools, rules and standards

Theme 2: Basics

- Modeling of assets

- Texturing of an asset

- Animation

Theme 3: Modelling, materials and textures

- Modeling of a Low Poly

- Modeling of a High Poly

- Photoshop: Texturing of a High Poly character

Theme 4: Setup and after-effects

- Scenario modeling

- After-effects

- Rendering with Blender Studio and finalized with Photoshop

Methodology

- Lectures in combination with practical activities

- Oral presentations

- Elaboration of projects

Development plan

Week	Description	Presential Activity
1th	Introduction course	Presentation course
2nd	Blender: Introduction + Interfaz	Tutoriales and group work on project

3rd	Blender: Crear y editar objetos	Tutoriales and group work on project
4th	Blender: Particulas, física y pelo	Tutoriales and group work on project
5th	Blender: Animación	Tutoriales and group work on project
6th	Photoshop: High y Low Poly	Tutoriales and group work on project
7th	Blender: Mapping, Texturing y Rendering	Tutoriales and group work on project
8th	Presentación: Concepto y diseño proyecto grupal	Oral Presentations
9th	Examen	**Only for students who do not participate in the continuous evaluation**
10th	Blender: Modelado de escenarios	Tutoriales and group work on project
11th	Blender: Modelado de árboles	Tutoriales and group work on project
12th	Blender: modelado de nubes y rocas	Tutoriales and group work on project
13th	Blender: Detalles y efectos finales	Tutoriales and group work on project
14th	Repaso de conocimientos y resolución de dudas	Review and doubts
15th	Presentation results of final project	Oral Presentations
16-17th	Final Exam	**Only for students who do not participate in the continuous evaluation**
19th	Resitting exam	Resitting exam

Evaluation

Acronym	Activities of Evaluation	Grade%	Minimum note	In group	Compulsory	Recoverable
P1	Oral Presentation (project concept)	30%	4	YES	YES	YES
P2	Oral Presentation (project concept)	30%	4	YES	YES	YES

PRA1	Practice1	20%		NO	YES	NO
PRA2	Practice 2	20%		NO	YES	NO
All students are expected to sit for and have a grade above 4 in the exams in order to be able to pass the course. However, the grade must be >=5.						
Final note = 0,30*P1 + 0,30*P2 + 0,20*PRA1 + 0,20*PRA2						

Bibliography

Hess. (2011). *Tradigital blender: a CG animator's guide to applying the classic principles of animation* (1st edition). Focal Press/Elsevier. https://doi.org/10.4324/9780240817583

Hess. (2010). *Blender foundations: the essential guide to learning Blender 2.6* (1st edition). Boston. https://doi.org/10.4324/9780240814315

Lidon Mañas. (2018). *Modelado de personajes con Blender.* RA-MA Editorial

https://www.3dblendered.com

https://blenderart.org