

Course Unit	Digital Architecture	Field of study	Visual Arts
Bachelor in	Game Design	School	School of Public Management, Communication and Tourism
Academic Year	2017/2018	Year of study	2
Type	Semestral	Semester	1
Workload (hours)	162	Contact hours	T - , TP 30, PL 30, TC - , S - , E - , OT - , O -
		Level	1-2
		ECTS credits	6.0
		Code	8309-414-2101-00-17

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Rogerio Paulo Azevedo Moreira Silva Gomes

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Know fundamental historical and theoretical concepts in architecture;
2. Acquire competencies of 3D modelling in Blender for architecture;
3. Develop creative ability to make digital games' architecture – Art Concepts and 3D;
4. Develop competencies in the analysis of worlds present in digital games.

Prerequisites

Before the course unit the learner is expected to be able to:
Mastery of the basics and introductory Blender 3D

Course contents

Introduction to the history and theory of architecture: fundamental elements of architecture; brief view of architectural styles; urban models and urban utopias. Specific development of 3D architecture and world modelling in Blender.

Course contents (extended version)

1. Introduction to the history and theory of architecture:
 - Fundamental elements of architecture;
2. Brief view of architectural styles:
 - Recognizing Egyptian architecture;
 - Recognizing Greek architecture;
 - Recognizing Roman architecture;
 - Recognizing Medieval architecture (Romanic and Gothic);
 - Recognizing Renaissance architecture;
 - Recognizing Baroque architecture;
 - Recognizing Neoclassical and Romantic architecture;
 - Recognizing Modern architecture;
 - Recognizing Post-modern architecture;
 - A few elements of non-western architecture;
3. Urban models (organic, classical, garden, modern);
4. Urban utopias;
5. Specific development of 3D architecture and world modelling in Blender:
 - conception
 - Modelling;
 - Materials and lighting;
 - Textures.

Recommended reading

1. Felinto, D. & Pan, M. (2013). Game Development with Blender. Boston, MA: Cengage Learning. [ISBN: 1435456637]
2. Pardew, Les (2005) Beginning Illustration and Storyboarding for Games: Thomson Course Technology. [ISBN: 1592004954]
3. Carvalho, J. (2003). Formas Urbanas. Coimbra: Editora Minerva. [ISBN: 9727980796]
4. Dorfles, G. (1986). A Arquitetura Moderna. Lisboa: Edições 70. [ISBN: 9724400396]
5. Roth, L. M. (2000). Entender la Arquitectura: Sus Elementos, Historia y Significado. Barcelona: Gustavo Gili. [ISBN: 8425217008]

Teaching and learning methods

- Content exposition, with the aid of different architectural examples. - Questioning, in order to develop critical skills. - Active method, when the student solves exercises and completes assignments.

Assessment methods

1. DISTRIBUTED EVALUATION - (Regular, Student Worker) (Final, Supplementary, Special)
 - Case Studies - 8% (Individual work: technical charts of architectural elements' recognition in digital games.)
 - Development Topics - 35% (Group work: analysis of a game relating it to an architectural style.)
 - Practical Work - 20% (Individual work: creating an architectural object in Blender relating it to an architectural style.)
 - Practical Work - 15% (Individual work: work proposal and 3D development of a creative set in Blender.)
 - Final Written Exam - 22% (Covering all subjects.)
2. Erasmus Students - DISTRIBUTED EVALUATION - (Regular, Student Worker) (Final, Supplementary, Special)
 - Case Studies - 8% (Individual work: technical charts of architectural elements' recognition in digital games.)
 - Development Topics - 35% (work: analysis of a game relating it to an architectural style.)
 - Practical Work - 42% (Individual work: work proposal and 3D development of a creative set in Blender.)
 - Practical Work - 15% (Individual work: creating an architectural object in Blender relating it to an architectural style.)

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

Rogério Paulo Azevedo Moreira Silva Gomes	Daniel Ribas de Almeida	Daniel Ribas de Almeida	Luisa Margarida Barata Lopes
16-10-2017	02-11-2017	02-11-2017	02-11-2017