

**CENTRO UNIVERSITARIO DE TECNOLOGÍA Y ARTE DIGITAL**



## **ACADEMIC PROGRAM**

### **PROJECTS IV**

# 1. BASIC INFORMATION/GENERAL INFORMATION.

Degree:	Bachelor in Interactive Product Design
Faculty or Centre:	Centro Universitario de Tecnología y Arte Digital (U-TAD)
Area:	Projects
Course:	Projects IV
Year:	Second
Teaching period:	Second
Type:	Compulsory subject
ECTS credits:	3
Teaching modality:	classroom-based course
Language:	English
Lecturer/Teacher:	Adrián Rodríguez
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## 2. SUBJECT DESCRIPTION

### Area description

This subject belongs to the Projects module and, within this, to the Projects area. The area "Projects" enables students to consolidate and reinforce the knowledge and skills acquired in the other subjects, develop teamwork skills and acquire professional work dynamics. It also integrates an interdisciplinary approach, which is considered absolutely necessary to complete their professional profile.

### Subject description

This subject has links with the other subjects of the degree, and more specifically with those taught in the second four-month period of the second year, since one of the objectives of this degree is the development of interactive projects with special attention to video games. Knowing the principles of design and implementation of

interfaces and modes in a game is another of the bases on which project development is based.

The subject "Projects" enables students to consolidate and reinforce the knowledge and skills acquired in the rest of the subjects, develop teamwork skills and acquire professional work dynamics. It also integrates an interdisciplinary approach which is considered absolutely necessary to complete their professional profile. Specifically, Projects IV allows the student to begin to understand and integrate interface designs, HUDs and modes in a video game or interactive application.

## **3. SKILLS AND LEARNING OUTCOMES**

### **3.1 Skills**

GC8 - Demonstrate the ability to work in a team.

GC9 - Know how to manage time effectively.

GC10 - Have the ability to work in an international context, as well as in diverse and multicultural environments.

GC11 - Manage basic skills for interpersonal relations.

GC12 - Express a critical and self-critical sense and the ability to analyse in order to evaluate different alternatives.

GC13 - Valuing a sense of work ethics.

GC14 - Knowing how to work in a team in multidisciplinary environments.

GC15 - Having the ability to organise and plan.

GC16 - Be able to express oneself correctly orally and in writing.

GC17 - Demonstrate the ability to analyse, synthesise and gather information from different sources.

GC18 - Manage information appropriately.

GC19 - Know how to make decisions and solve problems in the professional field.

GC1 - Lifelong learning through self-study and continuous training.

GC2 - Knowing how to adapt to change and new situations with flexibility and versatility.

GC4 Exercising leadership and negotiation skills.

GC5 Demonstrating initiative and entrepreneurial spirit.

GC6 Showing motivation for quality

CG7 Show interest and sensitivity in environmental and social issues, as well as the ability to analyse the social dimension of the activity and corporate social responsibility.

CB1 Students must have demonstrated possession and understanding of knowledge in an area of study that starts from the basis of general secondary education, and is usually found at a level that, although it is based on advanced textbooks, also includes

CB2 Students will be able to apply the knowledge and skills acquired in a field of study which is based on general secondary education and is usually at a level which, while relying on advanced textbooks, also includes some aspects involving knowledge from the cutting edge of their field of study.

TC1 Display their knowledge, activities and values in cultural, sporting and social spheres.

TC2 Show interest in acts of cooperation and civic solidarity.

SC8 Evaluate the ethical, technical and creative implications of technology in the design of interactive products.

SC11 Apply creativity in the digital content environment.

SC18 Applying theoretical and practical knowledge of product design for the development of contents.

SC22 Understanding and communicating clearly and effectively the development guidelines of a project.

SC23 Understanding the relevant aspects of the digital society in the context of sociology, philosophy, psychology, ethics, moral values and ethics, moral values

## 3.2 Learning outcomes

Identify needs and situations that require the intervention of the professional

Develop cooperation skills with other professionals

To become aware of the ethical component and deontological principles of the exercise of the profession.

To be aware of the fundamental rights and equality between men and women in the field of work.

Appropriately use theories, procedures and tools in their professional development

## 4. CONTENTS

- Gender Election
- Analysis and design of mechanics appropriate to the chosen genre
- High level flow design and game modes / menus
- Definition of a unified artistic style
- Implementation of multiple mechanics
- Implementation of menus and game interfaces for the different game modes
- Creation of graphic content appropriate to the visual style chosen.

## 5. SUBJECT SYLLABUS:

Topic 1: Characters and animations.

Topic 2: Terrain, skybox and basic lighting.

Topic3: 3D models and materials.

Topic4: Camera and basic UI.

Topic5: Advanced UI and autolayout: Advanced UI and autolayout.

Topic6: Advanced lighting.

Topic7: Post-processing effects.

## 6. TRAINING ACTIVITIES AND TEACHING METHODS

### Teaching methods

The subject will be developed through the following general methods and techniques, which will be applied differently depending on the characteristics of the subject:

- **Expository method/Master lecture:** the lecturer will develop the contents of the syllabus through master classes and dynamic lectures.
- **Case studies:** analysis of real cases related to the subject.

- **Exercise and problem solving:** students will develop the appropriate solutions by applying transformation procedures to the information available and interpreting the results.
- **Problem-based learning:** using problems as a starting point for the acquisition of new knowledge.
- **Project-oriented learning:** students are asked, in small groups, to plan, create and evaluate a project that responds to the needs posed in a given situation.
- **Cooperative learning:** students work in groups to carry out tasks collectively.

## Training activities

LEARNING ACTIVITIES	Total hours	Hours of attendance	% attendance
Theory classes	3	3	100
Seminars and workshops	3	3	100
Practical classes	3	3	100
Tutoring	3	3	100
Evaluation activities	3	3	100
Study and group work	30	12	40
Self-study and individual work	30	0	0

## 7. TEMPORAL DEVELOPMENT

Subject	Week
Topic 1: Characters and animations.	1,2,3
Topic 2: Terrain, skybox and basic lighting.	4,5
Topic3: 3D models and materials.	6,7
Topic4: Camera and basic UI.	8,9
Topic5: Advanced UI and autolayout	10,11
Topic6: Advanced lighting.	12,13
Topic7: Post-processing effects.	14,15

## 8. EVALUATION SYSTEM

ASSESSED ACTIVITY	MINIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)	MAXIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)
SE1 Assessment of participation in class, practicals or projects of the subject.	20%	40%

SE2 Evaluation of assignments, projects, reports, reports, reports	60%	80%
SE3 Objective assessment	0%	0%

### Grading criteria:

EVALUATION ACTIVITY	EVALUATION CRITERIA	EVALUATION CRITERIA ASSESSMENT IN RELATION TO THE FINAL GRADE (%)
SE1 Assessment of participation in class, practicals or projects of the subject.	Students will be assessed on their active participation and the correct submission of the practicals in due time and form.	40%
SE2 Evaluation of assignments, projects, reports, reports, reports	The following will be assessed - the quality of the work - the capacity for self-criticism and improvement	60%
SE3 Objective assessment	- presentation - the effort made	0%

### General comments on the evaluations/assessments:

- -Failure in continuous assessment if:  
2 or more of the 5 follow-up deliveries are not made.  
The intermediate or final delivery of the project is not carried out on time and in the correct manner.
- -On losing continuous assessment:  
Documents and project must be handed in at the extraordinary call.
- -Automatic failure if:  
Plagiarism is detected in the projects, including code, game design, levels, etc.  
Plagiarism detectors will be used in suspicious projects.  
Do not copy projects from other students, make your own from scratch.  
Miss 20% or more of classes.  
Failing grades go directly to the extraordinary exam.

## 9. LIST OF REFERENCES (BOOKS, PUBLICATIONS, WEBSITES):

### Key references

ROGERS, Scott. *Level Up!: The Guide to Great Video Game Design*. John Wiley & Sons 2010  
D. SAUNDERS, Kevin y Novak, Saunders, *Game Development Essentials: Game Interface Design*. Delmar Cengage Learning. 2013  
KENT, Steven L. (2001). *The Ultimate History of Video Games*. Random House.

### Recommended references

DONOVAN, Tristan (2010). *Replay: The History of Video Games*. YellowAnt Media.

## 10. Required materials, software and tools

### Type of classroom:

Projection equipment and whiteboard

### Materials:

Laptop computer

### Software:

Game development environment. Adobe CC.