

## Course guide

### 804250 - P3VJ - Project III

**Last modified:** 04/09/2023

|                            |   |                                    |
|----------------------------|---|------------------------------------|
| <b>Unit in charge:</b>     | Image Processing and Multimedia Technology Centre   |                                    |
| <b>Teaching unit:</b>      | 804 - CITM - Image Processing and Multimedia Technology Centre.                               |                                    |
| <b>Degree:</b>             | BACHELOR'S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Compulsory subject). |                                    |
| <b>Academic year:</b> 2023 | <b>ECTS Credits:</b> 6.0  | <b>Languages:</b> Catalan, English |

#### LECTURER

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|-------------------------------|---|
| <b>Coordinating lecturer:</b> | Uceda, Antonio                                    |
| <b>Others:</b>                | Martín, Mónica<br>Ripoll, Marc<br>Hurtado, Daniel |

#### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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##### Specific:

CEVJ 2. Schematically and visually represent complex concepts, ideas and/or data based on personal skills and external references, in order to convey attractiveness, originality and creativity.

CEVJ 1. Design the mechanics, rules, structure, script and artistic concept of a video game, maximising immersion and criteria of playability and balance to provide the best possible user experience.

CEVJ 5. Use programming languages, algorithmic patterns, data structures, visual programming tools, game engines and libraries for the development and prototyping of video games, in any genre and for any platform and mobile device.

CEVJ 6. Analyse, decide upon and apply graphic programming techniques, physics, artificial intelligence, interaction, augmented reality and networks to a video game project.

CEVJ 8. Design, model, texturise and animate 2D and 3D objects, characters and scenes for inclusion in digital projects, audiovisual sequences and video games.

CEVJ 13. Undertake and manage video game design and development projects, including planning, direction, execution and evaluation.

#### TEACHING METHODOLOGY

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The teacher will take the role of a studio owner and will ask for an idea to be developed. The students, working as a production team, will split into departments and work in the lines of a realistic game studio.

Following the SCRUM methodology, the teacher will evaluate every sprint individually.

#### LEARNING OBJECTIVES OF THE SUBJECT

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Learn how to embark in the development of a 3D video game of mid-big size.

Learn how to work in a extensive team divided by departments and coordinate with the rest.

How to structure the development like a micro AAA studio.

## STUDY LOAD

| Type               | Hours | Percentage |
|--------------------|-------|------------|
| Guided activities  | 12,0  | 8.00       |
| Hours large group  | 18,0  | 12.00      |
| Self study         | 90,0  | 60.00      |
| Hours medium group | 30,0  | 20.00      |

**Total learning time:** 150 h

## CONTENTS

### Concept Discovery

**Description:**

First iteration on the technical documentation  
Getting the technology required ready  
First pass on the GDD

**Full-or-part-time:** 10h

Theory classes: 4h  
Self study : 6h

### Vertical Slice

**Description:**

First playable demo that test the basic technology needed.  
Gameplay test and GDD iteration.  
Testing the technology with biggest risks.

**Full-or-part-time:** 30h

Theory classes: 12h  
Self study : 18h

### Production Planning

**Description:**

Generation of all needed tasks for the development (backlog).  
Estimation of all the tasks.  
Risk management.

**Full-or-part-time:** 11h

Theory classes: 5h  
Self study : 6h

### Alpha 1

**Description:**

Creation of the first level of the game:

- Iteration in gameplay code / technology / UI
- Environment art / characters / animations
- Iteration in level design and player progression.

**Full-or-part-time:** 22h

Theory classes: 10h

Self study : 12h

### Alpha 2

**Description:**

Repeating the same process from Alpha 1 to create the second level of the game:

- Retrospective and process improvement.
- Backlog review.

**Full-or-part-time:** 22h

Theory classes: 10h

Self study : 12h

### Alpha 3

**Description:**

Repeating the same process from Alpha 1 to create the second level of the game:

- Retrospective and process improvement.
- Backlog review.
- Content creation for game last level.

**Full-or-part-time:** 22h

Theory classes: 10h

Self study : 12h

### Polish

**Description:**

Last improvement to the game:

- Art polish.
- Code optimizations.
- Tide up documentation.

**Full-or-part-time:** 17h

Theory classes: 5h

Self study : 12h



## Beta

### Description:

Follow a strict beta process:

- Stabilization rounds.
- Bug distribution.
- Continuous integration.

**Full-or-part-time:** 16h

Theory classes: 4h

Self study : 12h

## GRADING SYSTEM

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The subject is purely practical and will use an individualized evaluation per milestone:

Concept Discovery 5%

Vertical Slice 1 10%

Vertical Slice 2 10%

Alpha 1 10%

Alpha 2 10%

Alpha 3 10%

Beta 5%

Gold 30%

Actitud i Participació 10%

## BIBLIOGRAPHY

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### Basic:

- Keith, C. Agile game development with Scrum. Upper Saddle River: Addison-Wesley, 2010. ISBN 9780321618528.