



Course guides

804250 - P3VJ - Project III

Last modified: 02/09/2021

Unit in charge: Image Processing and Multimedia Technology Centre
Teaching unit: 804 - CITM - Image Processing and Multimedia Technology Centre.

Degree: BACHELOR'S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Compulsory subject).

Academic year: 2021 **ECTS Credits:** 6.0 **Languages:** Catalan, Spanish, English

LECTURER

Coordinating lecturer: Garrigó Invers, Marc

Others: Ripoll Tarré, Marc
Pons López, Juan Jose

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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

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

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

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

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

Concept Discovery 5%

Vertical Slice 1 10%

Vertical Slice 2 10%

Planning Producció 5%

Alpha 1 10%

Alpha 2 10%

Alpha 3 10%

Beta 10%

Gold 20%

Actitud i Participació 10%

BIBLIOGRAPHY

Basic:

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