Course guide
804240 - P2VJ - Project II

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: 2024   **ECTS Credits:** 6.0   **Languages:** Spanish, English

LECTURER

Coordinating lecturer:	Omedas Morera, Pedro
Others:	Omedas Morera, Pedro
	Fuentes Expósito, Maria Ángeles

PRIOR SKILLS

Knowledge of programming using C and C++. Experience coding small 2D video games.

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.

Generical:
CGFC1VJ. Design, develop, select and evaluate applications and computer systems from 0 for video games, ensuring their reliability, security and quality, in accordance with ethical principles and current legislation and regulations.
CGFC6VJ. Analyse, design, build and maintain video game applications robustly, securely and efficiently, choosing the most appropriate paradigm and programming languages.

Transversal:
01 EIN. ENTREPRENEURSHIP AND INNOVATION: Knowing about and understanding how businesses are run and the sciences that govern their activity. Having the ability to understand labor laws and how planning, industrial and marketing strategies, quality and profits relate to each other.
05 TEQ N2. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.

TEACHING METHODOLOGY

Project-based learning. Students apply the knowledge learned in other subjects to the development of the project and seek information, consult with the teacher and learn new knowledge applicable to the project. Part of this project development work is carried out during classes, in which case the work is guided and supervised by the teacher. Another part is developed in teams, during class hours or during hours of autonomous work. Finally, another part is individual work for subsequent sharing.

LEARNING OBJECTIVES OF THE SUBJECT

- Acquire the necessary skills to initiate the development of a medium-sized 2D video game.
- Develop the ability to structure and organize a project as a small independent studio, encompassing the entire development process from project design to implementation, while ensuring the creation of relevant documentation.
- Gain proficiency in working effectively within a medium-sized team, including establishing clear roles, planning and monitoring tasks, implementing quality controls, and fostering team coordination.
- Learn the techniques and strategies for successfully pitching the project idea, effectively communicating its merits and potential to stakeholders.

STUDY LOAD

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

Total learning time: 150 h

CONTENTS

Creation of a micro studio

Description:
Group formation, establishing the roles and coordination approach
Select the tools for code development, communication, and planning

Full-or-part-time: 15h
Theory classes: 6h
Self study : 9h

Concept Discovery of the videogame

Description:
Identify the requirements of the Video Game
Conceptualization of the game and Game Design Document (GDD)
Creation of the Technical Design Document (TDD)
Art and Audio Bibles
Creation of the Project Development Plan
Creation and presentation techniques to Pitch the idea

Full-or-part-time: 20h
Theory classes: 8h
Self study : 12h

Coding the Vertical Slice

Description:
Initial architecture of the video game.
First implementation of map levels using tile editor.
Early version of characters, enemies and NPCs.
Early version of the core game play
Basic UI elements
Pitch the initial version of the game to stakeholders

Full-or-part-time: 45h
Theory classes: 18h
Self study : 27h

Coding the Alpha

Description:
Complete game play features
Optimization and implementation of advanced features
All the elements of the game are implemented
Pitch the alpha version of the game to stakeholders

Full-or-part-time: 50h
Theory classes: 20h
Self study : 30h

Gold version

Description:
Play testing
Polish gameplay
Polish the game design, art, and audio.
Testing and bug fixing
Website, trailer and final Pitch to stakeholders

Full-or-part-time: 20h
Theory classes: 8h
Self study : 12h

GRADING SYSTEM

Each student will create their own development diary where they will record their creative process: 25% of the final grade

Practices
· Practice 1 with a weighting of 10% of the final grade of the subject: Presentation of the micro company and Concept Discovery
· Practice 2 with a weighting of 15% of the final grade of the subject: Presentation of the prototype of the video game.
· Practice 3 with a weighting of 20% of the final grade of the subject: Presentation of the Alpha version of the video game.

Final project
· Practice with a weighting of 20% of the final grade of the subject: Presentation of the final game playable with and documentation of the evolution of the product.

Participation and learning attitude, which will be valued at 10%.

Irregular actions that may lead to a significant variation of the grade of one or more students constitute a fraudulent performance of an evaluation act. This action entails the descriptive grade of failure and a numerical grade of 0 for the ordinary global evaluation of the course, without the right to re-evaluation.

If the lecturers have indications of the use of AI tools not allowed in the evaluation tests, they may summon the students concerned to an oral test or a meeting to verify the authorship.

EXAMINATION RULES.

All exercises will be presented in class. The content will be important as it will be the presentation skills of the group.

BIBLIOGRAPHY

Basic:
- Hill-Whittall, R. The indie game developer handbook. Burlington, MA: Focal Press, 2015. ISBN 9781138828421.
- Schwarzi, T. Game project completed: how successful indie game developers finish their projects. North Charleston: Createspace, 2014. ISBN 9781490555454.

Complementary:
- Michael, D. Indie game development survival guide. Hingham, Mass: Charles River Media, 2003. ISBN 9781584502142.