PROJECTO APLICADO

Degree in Engineering and Development of Digital Games

Code: 15715

Main Scientific Area: Computer Graphics and Multimedia

Lecturer: Duarte Filipe Oliveira Duque

Language of Instruction: Portuguese

Regime: S1

Contact Hours: 0h Total Workload: 0h

ECTS: 12,0

Objectives

In this course is intended to put into practice the acquired knowledge and skills that the student has acquired along the course through the development of a video game. A final product, a video game, must be created and presented by the student: Video game specification (requirements, architecture and storyboard); Software implementation; Documentation (detailed report and video game manual); Video game presentation.

Learning Outcomes

Students who successfully complete this course should be able to:

- Select and apply appropriated techniques to analyze an existing problem and to develop a solution;

- Apply project management techniques in the development of a software product (video game);

- Produce a complex work within a specific time frame;

- Be critical in relation to the relevant literature, product and methods used; - Communicate technical information efficiently.

Course Contents

1. Project management

2. Scrum methodology

3. Version control

2. Research capacities: bibliographic research, review and analysis of sources

3. The problem analysis, solving and selection

5. Implementation of video game projects 6. Communication skills: reports, presentations and verbal communication

Recommended Bibliography

- Bond, J. G. (2014). Introduction to Game Design, Prototyping, and Development: From Concept to

Playable Game with Unity and C# (1 edition). Addison-Wesley Professional. ISBN: 978-0321933164

- Schell, J. (2019). The Art of Game Design: A Book of Lenses, Third Edition. A K Peters/CRC Press. ISBN: 978-1138632059

- Keith, C. K. (2010). Agile Game Development with SCRUM (1 edition). Addison-Wesley Professional. ISBN: 978-0321618528 - Laster, Brent (2016) Professional Git (1st Edition). Wrox. ISBN: 978-1119284970

Learning and Teaching Methods

The Applied Project course is designed for students to demonstrate, through the implementation of a video game, that they have mastered the knowledge previously acquired. In addition, however, it is necessary to address content inherent to project management. The success of the project implementation is intrinsically dependent on the management and organization of its stakeholders. Time, conflicts, decisions or interests are common problems in work teams. It is therefore intended to address this issue of project management by enabling students to manage a team, organize and plan projects. One of the objectives of this course is to enable students to become autonomous in the design of a video game through a formal and valid specification. In this sense, the skills to investigate, analyze, evaluate, solve and select to determine the best solution are transferred to the students. In the following stage the student will carry out the implementation of the project. Finally, issues related to documentation will be addressed, where the student will be instructed on how to produce proper documentation: reports, presentation or documentation regarding the use of the video game.

Assessment Methods

The learning outcomes will be assessed individually by:

- Prototype GDD = 5%

- Prototype = 10%

- Submission and presentation of a video game specification (GDD) = 10%

- Alpha Version = 20%

- Testing = 5%

- Beta Version = 20%

- Final Product (Master Version) = 20%

- Final Public Presentation and Promotional Material = 10%.

The student will have approval to the course if their final classification is equal to or greater than 9.5 values, and none of the evaluation components have ranked lower than 9.0.

It is not allowed the evaluation in any of the exam periods.