JOGOS E APLICAÇÕES

Code: 27219

Main Scientific Area: Computer Graphics and Multimedia

Lecturer: Duarte Filipe Oliveira Duque

Language of Instruction: Portuguese

Regime: T3

Contact Hours: 24h Total Workload: 57h

ECTS: 3,0

Objectives

In this curricular unit the students will have the opportunity to learn the use of graphic programming tools and low-code development, both for game and application development.

Learning Outcomes

Students will be able to perform:

- Block-based programming; - Application development using low-code tools.

Course Contents

1. Block-based visual programming

1.1. Usage in the game development

1.2. Usage in robot control

2. Low-code application development

2.1. Mobile application concepts

2.2. Good practices in application development 2.3. Application development using low-code tools

Recommended Bibliography

- Chak Tin Yu, (2020). Introduction to Block Based Programming: with Snap!, Hobby Press Tomorrow Skills.

- Bryan Kenneweg, Imran Kasam, Micah McMullen (2021) Building Low-Code Applications with Mendix. Packt Publishing Limited.

- Gary Garber (2015) Learning LEGO MINDSTORMS EV3. Packt Publishing Limited. - Eickhel Mendoza (2021) Microsoft Power Apps Cookbook. Packt Publishing Limited.

Learning and Teaching Methods

The first chapter focuses explicitly on application development using block-based visual languages. The second chapter introduces application development using low-code tools. In this way, each of these two chapters contribute to the two learning objectives mentioned.

Assessment Methods

For the assessment, students will be invited to individually develop a game or application in the STEAM teaching area in which they belong, in a PBL format. The evaluation will include a prototype (50%), a public presentation (20%), and a defense (30%).