

Course Unit	Contemporary issues and digital games	Field of study	Game Design/Informatics
Master in	Digital Game Design and Development	School	School of Public Management, Communication and Tourism
Academic Year	2023/2024	Year of study	1
Type	Semestral	Semester	2
Workload (hours)	162	Contact hours	T - , TP 45, PL - , TC - , S - , E - , OT - , O -
		Level	2-1
		ECTS credits	6.0
		Code	5074-802-1205-00-23

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Anabela Neves Alves de Pinho, Rita Carolina Morais da Costa

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. - Articulate the various concepts and dimensions present in models about serious games.
2. - Design and specify the requirements of a digital serious game.
3. - Identify tools for design, development and prototyping of a serious game.
4. - Customize gamification technology solutions, adjusting and tailoring them according to the application domain.
5. - Ideate and create rapid prototypes of digital games as to the implementation of solutions to respond to the issues of contemporary society.
6. - Reflect critically on the approaches presented.

Prerequisites

Before the course unit the learner is expected to be able to:
Not applicable.

Course contents

Presentation of the conceptual framework of serious games. Design and development of serious digital games. Application domains. Implementing gamification strategies.

Course contents (extended version)

1. Concepts of serious games and the main models, framed by the issues of contemporary society.
2. Stages and techniques of design and development of serious digital games.
3. Application domains of Serious Games in the areas of sustainability and others application domains.
4. Defining and implementing a gamification strategy. Application examples.

Recommended reading

1. Chang, A. Y. (2019). *Playing Nature: Ecology in Videogames*. University of Minnesota Press.
2. Cruz-Cunha, M. M., & Cruz-Cunha, I. (Eds.). (2021). *Handbook of Research on Serious Games for Educational Applications*. IGI Global.
3. Loh, C. S., Gualeni, S., & Deterding, S. (Eds.). (2018). *Serious Games Analytics: Methodologies for Performance Measurement, Assessment, and Improvement*. Springer
4. Moberg, A., & Ronneberger, K. (Eds.). (2019). *Video Games as Culture: Considering the Role and Importance of Video Games in Contemporary Society*. Routledge.
5. Rodrigues, L., Oliveira, A., & Rodrigues, H. (2022). *Jogos Sérios: A Arte de Gamificar*. Causa das Regras. ISBN 978-989-8754-92-9

Teaching and learning methods

The teaching/learning process will be based on theoretical-practical lessons where the theoretical concepts are explained, using expositive and demonstrative methodologies, enabling the analysis and discussion of technological approaches in order to endow the student with analytical capabilities and skills needed to create prototypes or implement technological solutions to real problems.

Assessment methods

- Final Evaluation - (Regular, Student Worker) (Final, Supplementary, Special)
- Practical Work - 50% (Application of the contents of chapters 1 and 2. (Minimum grade 7 values))
- Practical Work - 50% (Application of the contents of chapters 3 and 4. (Minimum grade 7 values))

Language of instruction

1. Portuguese
2. English

Electronic validation

Anabela Neves Alves de Pinho, Rita Carolina Morais da Costa	João Paulo Pereira de Sousa	Ines Monteiro Barbedo de Magalhaes	Luisa Margarida Barata Lopes
01-03-2024	19-03-2024	19-03-2024	26-03-2024