GAME DESIGN (MASTED-01-07)				
DEGREE PROGRAM:		Master in integrated STEAM Education (MASTED)		
SEMESTER:	**TYPE:**	**CREDITS:**	**WORKLOAD:**	**MENTORING:**
First	Basic	5 ECTS	125 hours	5 hours/week
LANGUAGE: Portuguese/English				

OBJECTIVES	
General	To provide the students with the tools and processes associated with game design in its abstract form.
Specific	• To decide which are the best methods and techniques to not only interact with players, but also to develop a video-game within their capacities and skills. • To able to recognize and to work with formal and dramatic game elements. • To be able to recognize and to design system dynamics, understanding a game's rhetorics. • To be able to design a game experience through gameplay.
SUBJECT MATTER	
The Game Design course will introduce topics such as experimentation with mechanics for action, player experience and game rhetoric, rapid prototyping and playtesting, and innovation through design to break convention. It is from this discipline that the entire game project development process begins. Game design is a multidisciplinary field, which needs deliberate approaches, based on design tools and techniques. The deliberate use of design tools aid in the creation of ideas which are clear, well organized, and easy to iterate. The curriculum will address these subjects: -Game elements; Rules and Game loops; -Game mechanics and systems; Creativity exercises; Planning	
COMPETENCES	
• C1: Developing knowledge and understanding in game design. • C2: Developing advanced cognitive and procedural skills associated with knowledge development and creation. • C5: Developing of assess in order to evidence learning and to improve the learning process and the teaching practices. • C9: Integrating the theoretical knowledge acquired throughout the course with field practice. • C10: Developing communication and cooperation skills with different stakeholders. • C14: Developing advanced digital competences. • C15: Developing digital pedagogy competences to use, plan and implement new technologies.	
LEARNING OUTCOMES	
Knowledge	• Knowledge related to the creation, design and planification of game experience through gameplay • Understanding game's rhetorics.
Skills	• Game Design skills • To recognize and to work with formal and dramatic game elements. • To use digital technologies to engage in collaboration with other educators, sharing and exchanging knowledge and experiences and collaboratively innovating pedagogic practices.
Attitudes/values	• Commitment for promoting the learning of all students. • Disposition to examining, discussing, questioning one's own practices. • Improvement of attitudes of research, innovation, collaboration, autonomous learning. • stimulate the student's creativity in order to promote the design/use of tools that allow the robotic system to interact with the scene in which it moves. • Disposition to flexibility and ongoing learning.
TEACHING METHODS	

Presentation, analysis and discussion of relevant materials, while establishing a permanent discussion forum within the workgroup. The classroom will be organized as a creative laboratory focused on ideation, experimentation and rapid prototyping.
Laboratorial activities will focus on perceiving, on exploring and on breaking game design conventions, in search of new, critical and socioculturally relevant game mechanics, dynamics and experiences. It intends to question the norms and conventions of traditional game design, to break their limits, and to expand the horizons of action of the game designer, and consequently of the students themselves as game designers.
This lab structure will be highly favorable to the development of experimental and original projects, in which students will implement content and apply skills critically and conscious of the experiences, knowledge and rhetorics their games promote.
This curricular unit will use multiple learning methods, such as:

- Non interactive exposition
- Interactive discussions
- Class room exercises
- Briefing based essays.

Its essential that the learning is relevant to real-world situations. For that matter, the class room exercises will be focused on a base of realism, to which students will need to apply the knowledge they have acquired in the theoretical components of the curricular unit.
This way, the theoretical knowledge will have a practical application, and become associated with the normal development process for video games.

EVALUATION

The curricular unit will be graded by attendance only, with student participation, group assignments and a final essay of game design documentation. The final essay will be done in coordination with the Integrated Project curricular unit.
The evaluation will be formulated as follows:

- student participation: 10%
- individual project assignments: 40%

group assignment: 50%

PRECONDITIONS

None

DEPARTMENT	Computer Graphics and Multimedia
LECTURERS	Product design degree Marco Vale
LITERATURE	• Bogost, Ian. Persuasive Games: The Expressive Power of Videogames. Cambridge: MIT Press, 2007. iBook. • Cardoso, Pedro. "Summarising the 7 Dimensions of an Action-Oriented Framework for Video Games." CITAR Journal: Journal of Science and Technology of the Arts 8, no. 1 – xCoAx 2016 Special Issue (2016). • Cardoso, Pedro, and Miguel Carvalhais. 2017. "Traversal by repetition: Reprising in video games." 16.ART: International Meeting on Art and Technology, Porto. • Cardoso, Pedro, Ricardo Melo, and Miguel Carvalhais. 2019. "Breaking the Hedonistic Loop: Meaning before fun in videogames." Artech 2019: 9th International Conference in Digital and Interactive Arts, Braga. • Carvalhais, Miguel, Pedro Cardoso, José Raimundo, and Ricardo Melo. 2019. "Designing games that prioritize meaning over fun." Contemporânea: Revista do PPGART/UFSM 2 (4). https://periodicos.ufsm.br/contemporanea/article/view/ • 41302/22287. • Carvalhais, Miguel, and Pedro Cardoso. "Creation of Meaning in Processor-Based Artefacts." In ISEA 2017: International Symposium on Electronic Arts. Manizales, Columbia, 2017. • Flanagan, Mary. Critical Play: Radical Game Design. Cambridge: MIT Press, 2009. iBook.

	• Frasca, Gonzalo. "Play the Message: Play, Game and Videogame Rhetoric." IT University of Copenhagen, 2007. • Grace, Lindsay. 2014. "Critical Games: Critical Design in Independent Games." DIGRA 2014, Salt Lake City. DOI: 10.13140/2.1.2607.3603 • Hunicke, Robin, Marc LeBlanc, and Robert Zubek. "MDA: A Formal Approach to Game Design and Game Research." • Paper presented at the AAAI-04 Workshop on Challenges in Game AI, 2004. • Schell, Jesse. The Art of Game Design: A Book of Lenses. Amsterdam; Boston: Elsevier/ Morgan Kaufmann, 2008. • Upton, Brian. 2018. Situational Game Design. CRC Press.